An Address
ON
THE USE OF DRUGS.

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MR. PRESIDENT AND GENTLEMEN,—I am glad to have an opportunity of exchanging some thoughts with members of the branch of the profession to which I have not the honour to belong. The chief line of cleavage which runs through the profession is that which separates the many, whose work is primarily to apply knowledge, and the few, whose work is primarily to advance knowledge, and also to bring from the front, when needed, the greater particular knowledge which less wide work has permitted them to obtain. I use the word "honour" advisedly, because I hold that of the two branches the work of the general practitioner is the more deserving of honour. His work is, perhaps, not more arduous, and perhaps, on the whole, has a more adequate practical reward, but it is destitute of the incentive which science supplies to those who serve her with pure heart and earnest endeavour, and which makes the labour, at least for such, its own reward. I have also used advisedly the word "particular" in contrast to the word "general." The accurate antithesis would be "special." But this word now involves other conceptions. I think, indeed, that those who are strong in their objection to specialism in medicine scarcely realise how inevitable it is. It begins as soon as the boundary of general practice is passed. The division of medicine from surgery is specialism. But this subject is too commonplace for me to waste your time by dwelling on it—the necessity of restriction of range of work in order to secure depth, or the mistake that is made when specialism is confounded with exclusivism. Yet I must, in passing, mention and emphasise one important fact: that the special implies the general, and that no man can be a specialist who has not an adequate practical acquaintance with the whole range of at least one of the two great branches of professional knowledge. Indeed, he must go further. I had occasion lately to point this out to a class of students when lecturing on a case of paraplegia from compression of the spinal cord in consequence of vertebral caries. Caries of bone is regarded as a purely surgical affection; whatever its effects, the treatment it needs, apart from operative procedure, is the same. Yet, as soon as the caries of the spine influences the spinal cord, the case is transferred not only to the physician but to the physician who devotes his attention chiefly to one class of diseases, those of the nervous system. A few days ago I found that a patient had been admitted into the National Hospital for the Paralysed and Epileptic, under my care, who presents an illustration of this which may be termed an *extensio ad absurdum*. He has caries of the spine, but he has no nerve symptoms, nor has he had. He was sent there apparently because his disease *might* cause paralysis. The fact is an unquestionable compliment to the Hospital, but if the practice were extensively adopted—as, for instance, in Bright's disease, heart disease, &c.—the capacity of the Hospital would have to grow and multiply exceedingly. Diseases of the nervous system, however, abound in illustrations of the degree to which the special involves the general. In the case of sudden lesions of the brain, hæmorrhage or softening, the treatment needed is only, in a small degree, treatment of the nervous system. For the most part, it is treatment of the vascular system, or of the heart, or of the general blood state; and any good that can be done is to be effected only through a knowledge of all these morbid states and of their treatment. As a matter of fact, diseases of the nervous system so called are widening out in ever-increasing degree. The extent to which symptoms apparently of purely nervous nature depend primarily upon blood states and constitutional conditions is becoming more and more apparent, and compels not only wider knowledge, but wider familiarity with such diathetic states and their indications. Some of them are only disclosed by their effect upon the nervous system. There is no part of medicine in which a nerve specialist must not be at home. I have sometimes thought that those who look widely through a narrow aperture may see more distinctly than those whose gaze ranges equally over the whole landscape. Light may hinder vision as well as aid it. But this is certain: no part of pathology is, or can be, isolated. Unless special work is based upon general and thorough knowledge it is unsafe.

It is of great importance that these facts should be recognised by practitioners. Consultants are, for the most part, that which practitioners, by their action, decide. With rare exceptions, a physician is not "run after" by the laity unless he has first received the stamp of general professional approval. Besides this indirect influence, the total amount of direct power in the hands of general practitioners is enormous. They are apt to complain of evils for which they are themselves really responsible. They too often condone in action that which they condemn in words.

It may occur to you that, in speaking of the general practitioner, I am speaking of that of which I know little. But I am not quite ignorant of general practice. It is indeed probably true that the members of the two great branches of the profession—the general practitioners and the consultants—are less able than they were formerly to understand each other, and to enter into each other's modes of thought and limitations of action. Neither has taken part in the practical life of the other in the way through which alone it can be thoroughly understood. I count myself fortunate in having entered the profession by the path which so few now tread—that of apprenticeship to a country practitioner. The changing times, the increased demands of the curriculum, and the long period of formal work, have made this method for the most part impracticable. No doubt the change is wise. The first two years are now more profitably spent. And yet I learnt much which I would not willingly forego during the period in which my professional work consisted of making up pills and bottles of medicine, sometimes rising to the dignity of assisting at an operation, of watching a child in convulsions, or of pulling out myself a tooth that was very loose. I learned something from these processes. In fact, I learnt much from the dispensing work. These things, moreover, left me time to work up, almost afresh, for the matriculation of the University of London. I also learned to love Tennyson and to worship Ruskin, while my summer afternoon rambles enabled me to do that which I have found most useful—to learn much of practical British botany. Botany stands low among the subjects of medical study. With that I have nothing to do. But of this I am certain—there is no part of science which is indirectly of so much service to the practitioner as practical British botany. The process of the identification of plants by the descriptions, the training it involves in accurate observation, in careful comparison, and in giving the proper relative weight to different features, is essentially the same as that which is needed in the diagnosis of disease. No subject affords mental training quite so effective for the practitioner's work. But my wandering path has taken me away from the lessons for which I introduced the subject of apprenticeship.

I gained two perceptions of the work of the practitioner which I have never lost. The first is the narrow limit which circumstance sets to the therapeutical scope of the average practitioner. By "average practitioner" I mean the practitioner whose work represents that of the majority, the work which lies among the lower classes or among the lower middle classes—among the poor, commonly so called, and among those middle classes to whom the present day has brought the poverty involved in augmented needs and lessened means. If the work of the practitioners of this country were measured by statistics, would not these classes make up at least four-fifths of it? Of such work is not the following statement true? With the exception of the cases of acute disease, in which the means are more varied by which the sufferer may be kept in life and conducted back to health, the therapeutical means the practitioner can employ are almost limited to the administration of drugs. Are not his means almost restricted to the method of treatment to which it is now customary to refer in terms not far removed from those of contempt? Where is the room in such practice for the many measures of which we hear so much in the present day—

measures which are developed in such elaboration of detail, and described in even a greater elaboration of terms descriptive and commendatory? These systems of treatment pass in waves of fashion across the surface of suffering humanity with well-filled pockets. The rise and fall of these must be watched from afar with feelings allied to wonder by those practitioners whose lot is cast in places less happy and whose patients belong to classes less favoured. The second fact that was impressed upon me was that this method of treatment by drugs does, in most cases, not only a definite but a great amount of good. This impression was derived from observation of the effects of the routine mixture and the routine pill, devised for those whose life led to like suffering and could be relieved by like measures. I have never lost the impression, and it has been deepened by my own subsequent observations.

The physician's experience of the use of drugs is acquired under conditions not altogether favourable. It is his task to deal with cases that have resisted the efforts of practitioners who are often wise, persevering, and equipped with knowledge in a degree increasingly adequate and effective. Success in treatment by drugs, after such antecedent efforts, seems to me to testify to the undeveloped capacities in the means employed. However this may be, I am convinced that the method of treatment to which the average practitioner is chiefly restricted now, as he was in the past, to which he is limited by a compulsion not less at the present time than in former days, has not only a power that can be realised now but also a potentiality yet to be developed.

It has, therefore, been with great interest that I have seemed of late to see more clearly why this should be. When I say "I have seemed to see it," I do not mean that it is not conspicuous to many. The scepticism regarding the use of drugs to which I have referred is, I think, less now than a few years ago. One favourite foothold was the statistical demonstration of inutility—as, for instance, that the average duration of acute rheumatism was the same whatever treatment was employed or when no agents were used. That is no longer possible, since we have sought help from the willow which casts its shadow on the damp places in which there thrive the bane and antidote. Since the salicylates were employed I fancy the significance of the loss of this convenient argument has been felt. Then, moreover, the empirical advice, "Try all things; hold fast that which s good," to which in the hands of peasants we owe many of our most precious aids, has been applied to the results of modern chemistry, and every tangible achievement of science has been seized by the "advanced pharmacy" of the present day.

But can we discern the reason why drugs are useful? Consider. I show you two tubes. Each contains a small quantity of a white powder—about half a teaspoonful. Each consists of the same elements. One is practically harmless; the other contains within it the power of death to 1000 men. The one is quinine; the other is aconitia[1]—the alkaloid which makes so deadly the plant whose flower our ancestors called "monkshood" in the far-off days when the original was always before their eyes. It is an almost startling fact that in this minute quantity of powder, hardly visible to those at a distance, there is such a potentiality of death. Picture to yourselves 1000 men. That which is in this tube would end the life of every one of them. There is a latent power within this powder beside which the lightning flash is feeble, and to which the earthquake might give place, so far as the comparison depends on lethal certainty. But the resemblance in the aspect of these two substances is not all. As I said, each consists of the same elements: each is made up of carbon, nitrogen, oxygen, and hydrogen. Each consists of the elements which compose air and water, with some carbon added — soot, if you like. Why is one almost harmless, and the other a most deadly poison? I might have chosen for the lower term of the comparison a simple food, but then the amount of nitrogen would have been less, and the resemblance in construction less close. The answer may be given, "It depends upon the chemical constitution." True, but this takes us a very little way. When we discern that the difference depends upon the way in which the atoms of the elements are arranged in molecules, and the molecules are grouped together, we are no nearer an explanation. We see a little more, however, when we realise that chemical constitution means that energy is held "latent" (as it is said) ready to be released when the elements can form simpler, closer compounds, and that on the same kind of constitution and the same kind of simpler union, and similar release of energy, in the constituents of the living tissues seems to depend all vital function. As far as we can see all the energy which is released in the animal body is released in consequence of chemical union under the mysterious influence of life. When such union and such release are going on, the process may be changed entirely by the contact of molecules of allied constitution, with latent energy on the point of release, so held as to blend with that which is being set free as living tissue. Blending with this it may augment or oppose it. Remember that a difference in chemical constitution means a difference in the readiness with which the elements separate and re-unite, and on this depends the effect exerted by the energy they bear. I have recently endeavoured to explain this in a small book,[2] in which you can, if you desire, pursue these conceptions.

Nerve force, as far as we can see, is the result of such chemical change occurring under the influence of life in the molecules which compose nerve tissue. Chemical compounds may come into relation with the substance in which the change is occurring without exerting the slightest influence upon it. But another substance may come, even in amount inconceivably minute, whose molecules are so arranged as to fit in, as it were, with the changing molecules of the living tissue. The energy the new molecules bear seems to blend with that which is in process of ordered release in the living tissue, and to blend so suddenly and so effectively as to derange it entirely. The various nerve tissues which compose the centres seem to us the same, but they must differ in their precise chemical nature and in the precise chemical action which their life-work involves. This fact is revealed to us only by their different response to different chemical agents, but the revelation is often a startling one. The difference in response is certain, the uniformity in the nature of the agent is certain, and therefore the difference in result must be due to a difference in that on which the agent acts. Although we have no other evidence of this, consider the absolute significance of such facts as that atropine acts first upon the nerve substance of the eye, and strychnia upon that of the spinal cord. Such an influence as I have spoken of seems to be almost universal in the case of aconitia. Its contact with any acting nerve structure seems to be, as it were, so direct, instant, and precise as to generate, as it were, an avalanche of energy, sweeping all before it, or opposing the process of liberation of energy with a momentum that involves a sudden stillness among the whirling atoms whose throb is far below the range of human sense. Among the nerves thus influenced may be those on which depends the action of the heart, and with a sudden spasm or a sudden stillness the heart stops and life is ended. That which so acts we call a poison. Widely different from this as is that vehicle for energy which we call a food, the difference is one of degree. Every form of food is such by taking to the tissues new energy in fresh molecules. Between the two—the poison and the food—there is an almost infinite gradation of substances whose influence is exerted in like way by chemical compounds upon the chemical processes of life, upon the state of nutrition, and upon the mode of action of the living tissues. It is in this intermediate region that there is the range of therapeutic influence conveyed by the vehicles we call drugs. The difference is of course in part one of quantity. But it is by the relation of the latent energy of the agent to the energy being released in the tissue, and to the secondary effect of the action thus produced upon nutrition, that one wide scope for the influence of drugs can be readily perceived. There are others, but they are different aspects of the same influence, and the facts may, I think, be best epitomised by the statement that treatment by drugs would be correctly named "dynamical therapeutics."

Although I believe that it is generally true that what we call "matter" is only effective, whether it be employed as food, medicine, or as poison, because it is a vehicle for energy, some apparent exceptions should be at least mentioned. In the functional action of all structures in the body, molecules are constantly passing off which, having formed with oxygen lower compounds and having

[1] For the opportunity of showing these specimens I am indebted to Mr. W. Martindale.

[2] The Dynamics of Life. London: J. & A. Churchill, 1894.

yielded their latent energy, are useless, and these are constantly being replaced by others formed under the influence of life from the material which the plasma has brought to the vicinity of the structure. It is possible that the molecules of some poisons may enter into the constitution of the tissues in abnormal amount, and thus disturb function by deranging the release of energy. There are also some cases in which atoms of some different element seem to enter and replace normal atoms, and thus derange. Whenever arsenic is brought in contact with the nerve elements, whatever be its combination, it induces not only functional but also structural changes in these, leading ultimately to their degeneration. We can only explain this by supposing that atoms of arsenic are taken up by the nerve substance in the course of the molecular renewal which attends functional action, and it is reasonable to suppose that this is due to its close relation to phosphorus, which we know is a constituent of the nerve material. It is possible that such substitution may take place in a slight degree without any injurious consequences, and even, in morbid states, with benefit. The influence on the nutritional process may be actually beneficial when this is already in some way deranged. It may promote the subsequent due assimilation of phosphorus, and make this more adequate and effective. Of course this is only a speculation. It is sometimes a help to conceive how that may be which we cannot but perceive as a fact.

These remarks have reference, of course, only to the medicinal agents which act through the blood. There is a considerable scope for thought regarding the action of agents which do not pass into the blood, which act only upon the surface, or on that portion of our real exterior which is within us, as the alimentary canal. In this region, moreover, there is some room for bringing conception to the test of experiment. Many purgatives, of course, act through the blood, but chemical processes seem to take less part in the operation of saline aperients. These act rather by "flushing out," the liquid in which the salt is dissolved being merely added to by osmosis and exciting contraction. The subject, indeed, requires more special study than it has received. The great service of salines seems to me to be effected by removing that which would be in part reabsorbed.

One other phase of modern therapeutical thought is to me a mystery. It is the contrast which is often drawn between the empirical and the rational in the use of drugs, and the disparagement of the former in comparison with the latter. Possibly it is a result of the influence of the scientific training which now dominates medical education. Beneficial as this training is, its influence may acquire a momentum that carries the effect too far, and, indeed, its influence may spread too widely for the good of those whose life is to be devoted to the hard and often routine work of applying knowledge. The intense love for pure science begotten in the better class of medical students of the present day, warm with the ardour of youth, makes them slow to sink into the grooves to which they are predestined, and hinders their perception of that which they might gain and see therein. They yield at once to the distinction between the rational in therapeutics and the merely empirical. It is all very well to esteem the rational, but we have, I hope, seen that this esteem should not be allowed to cause an aversion from that which is precious, and yet cannot be called "rational" in the common narrow sense of the word. The antithesis of the empirical and the rational is itself an error. It is an instance of a common tendency to put a positive conception into a negative word. Because the empirical is not the rational it is conceived as irrational—the only simple negative we have, but one that implies far more than simple absence of the quality excluded. The "irrational" should be merely the "not rational," but in effect it carries us as far beyond neutrality as does "unreasonable." No one means by "unreasonable" a simple absence of the quality of reasonableness. We are so accustomed to the use of the mere negative for the opposite positive that an effort may be necessary to perceive the real meaning of the words. Not only is the empirical not positively irrational: it is doubtful how we are justified in considering that a truly rational element is absent from the empirical. The term "rational therapeutics" is applied to treatment in which a drug is given with success in accordance with preconceived ideas or with a theory. The theory may turn out quite wrong, although the result is the same. What, then, becomes of the rationality? In empirical therapeutics a drug is given because it is found by experience that in the particular condition it does good. Often we cannot even guess why. But the fact remains, and surely to act upon observed experience is as truly a rational proceeding as is action upon a theory which may be incorrect. After all, the medicinal treatment which can be based upon any definite theory is small. How seldom, moreover, can we use a drug to advantage which was discovered save by the purest empiricism. In not one drug in twenty, perhaps not one in fifty, of those of most certain service, can the use be traced to anything except unguided experiment. Our knowledge of these drugs, derived from the past—and often from the distant past—must be assumed to be the result of experiments innumerable, perhaps continued through the long tens of centuries in which the human race has lived among surroundings which alike compelled and suggested endeavours to counteract disease by every available means. The need for food must itself have led men to a knowledge of the physiological action of most herbs of the field, especially when domestication brought the habits of animals under observation, habits such as must have had the power of example. It is probable that since man became able to observe and to reason, every common herb of the field and fruit of the tree has been at some time tested, and thus by slow degrees the knowledge of a physical good and evil has been acquired.

It is strange, indeed, to note how far back goes the use of the drugs on which we most rely. Most of them can be traced into the mists of the popular knowledge which it is so easy to sneer at and would be so difficult to do without, or until they are lost in the bluer mists in which the distance shrouds alike the hills of Greece and deserts of Arabia, or to the time when the world learnt its wisdom from the land where now only the sculptured symbols of man's thought stand silent in the cold moonlight of a long dead past. We smile at the popular herbal remedies. But it is to these that we owe the majority of our most useful drugs. I cannot conceive a therapeutist surveying a list of the chief drugs on which we depend in our daily work—and do not depend in vain—without a sense of wonder and perhaps of humiliation. We disinfect our rooms with burning sulphur; and so men did before the time of Homer. We purge sometimes with rhubarb, especially when some subsequent astringent influence is desirable, and so did the old Arabians for the same special reason. The value of castor oil in its chief use was familiar, probably for ages, to the natives of the East and of the West Indies before it was made known in Europe by a physician from Antigua 150 years ago. Aloes was employed in the same way long before the time of Dioscorides and Pliny. The knowledge of the influence of ergot in parturition we owe to the peasants of Germany, and the use of male-fern for tapeworm goes back to the old Greeks and Romans. The employment of mercury in syphilis by inunction and fumigation, which our nineteenth-century therapeutists regard with such satisfaction, seems to go back to the time of the Crusades, and it is said that its use can be traced in Malabar as far back as the ninth century. Podophyllum as a purgative we owe to the North American Indians. If we go through all the drugs on which we most rely we find the same story. Even in the case of those which are the latest additions to our resources, we find that, with very few exceptions, their use arose from what we must regard as pure empiricism. It was by accident that the local anæsthetic influence of cocaine was discovered. The unexpected results of simple experiment afforded us the chief use of antipyrin; and that which is perhaps the greatest practical discovery of modern times in the influence of drugs on disease—the use of bromides in epilepsy—was the result of a chance observation of its use on an allied state—also empirical. To this day we are without any rational perception of its mode of action or of the reasons for its use in given cases. I yield to no one in my sense of the importance of the rational in therapeutics; but we need to be careful lest, in contrasting the rational and the empirical, we allow our esteem for the one to induce a depreciation of the other. We can afford to despise no source or kind of help, or to permit our estimate to be lessened by the many warping influences to which our thought is liable.

I have, indeed, tried to frame a definition of rational therapeutics which I could illustrate by examples. I will not say that I have wholly failed, but my success is not sufficient to let me submit it for your consideration. But the attempt has impressed me with a doubt as to the propriety of considering that a theory, to explain an empirical discovery, makes the therapeutics rational. It is very easy to frame a theory of the action of a drug, and it is

easy to extend this theory to the nature of the disease in which the drug does good, and at the same time to ignore the many other possible ways in which the effect may be produced, and so to build from a small and uncertain foundation an edifice which some new knowledge may reduce to that which most builders call "rubbish." When I recommend a drug I am often asked, "How does it act?" Occasionally I can give some inadequate reason, but I am generally compelled to answer, "I do not know; it is often useful in this condition." Sometimes I can add, "There are several ways in which it may act." Sometimes I am obliged to say, "I have no idea how it does good." It has not been my privilege to add much to our therapeutical resources, but the few agents I have recommended have been based on pure empiricism. A few days ago I received a pamphlet from a distinguished French physician, Dr. Féré, who confirms the statement which I made sixteen years ago regarding the occasional service of borax in epilepsy, a confirmation which many others have furnished. In inveterate cases which do not yield to bromide, borax sometimes does good that is definite and distinctly greater than that which bromide produces in those cases. But I cannot say why. It was one of many things I tried, simply as a peasant might try in succession a number of herbs. Further, the diminution in the tendency to the distressing pains in locomotor ataxy which is caused by the regular administration of chloride of aluminium is so distinct that I have little doubt that the time will come when this drug will find a place in the Pharmacopœia. But I had no better reason for trying it than the fact that arsenic is a metal and so is aluminium. Of the rational we have here no trace, although I should take objection to the difference involved in the application of the epithet "irrational."

There is much more I should like to say for which time fails. I must content myself with expressing the hope that you will *use* this address. By this I mean that you will utilise it, even though the process involves tearing it to shreds. I should much like you to discuss the statement from which I started—the relation of the use of drugs to the work of the general practitioner. But I should also like you to go further—to endeavour to answer the problems that underlie my statement. I feel sure that such a society as yours cannot do more for its members, and cannot in any way do more for the profession outside, or for yourselves, than by carefully considering what drugs are found, by the personal experience of each one, to be of real use, by combining the results of personal observation, and by endeavouring in the future to organise mutual help in respect to the new therapeutic agents which the earnestness and energy of others, disinterested or interested, bestow upon us. I count it a high privilege to teach, but a privilege far higher to help men to teach themselves. It is easy to lose that which is merely received. That which is acquired is persistent. Knowledge personally gained becomes part of a man's mental self—not only as knowledge, but as power. It rises in its influence into every branch of the complex activity of practical life, and it becomes effective through its indirect effect even where we cannot trace its presence.

[*Note.*—I am glad to learn, from a letter in THE LANCET of last week, that the above suggestion is bearing fruit. I think that local medical societies would benefit by such discussions. It would be especially useful to take some related drugs, such as the antipyrine group, or the gentler hypnotics, and arrange, at a preliminary discussion, points for observation, the results to be compared and considered on another occasion a few months afterwards. Observations under these conditions would have a special value. Even in a small society—far more in a number of societies—it would be interesting to know the deliberate voting on the drugs of the Pharmacopœia that are believed, from personal experience, to be of definite value.]

CHICHESTER INFIRMARY.—The annual meeting of the governors of Chichester Infirmary was held on Nov. 14th, the Mayor presiding. The report showed that the income of the institution is insufficient to meet the expenditure, and the trustees have been requested to sell out £400 Consols. A legacy of £500, bequeathed by the late Miss Fetherstonhaugh, will be paid over before long, but an increase of at least £200 in the permanent income is required.

THE PHARMACOLOGY OF THE IPECACUANHA ALKALOIDS.[1]

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THE active principle of the ipecacuanha root "emetine" has been known to chemists since the early part of the present century, and its physiological action has been investigated by Magendie and many subsequent observers. The experimental results have in some cases been discrepant and at times even contradictory, so that doubt still exists as to the precise nature of the so-called "emetine" and its action upon the tissues. Considerable light has recently been thrown upon the cause of these discrepancies by the researches of Paul and Cownley,[2] who have shown that the ipecacuanha root contains at least two distinct alkaloids, and that these exist in variable relative proportions in different varieties of the plant. They have also shown that the so-called "emetine" previously obtained by different chemists was not always the same substance, that obtained by Glenard[3] consisted of one of the two alkaloids, while other methods yielded variable mixtures. Paul and Cownley have succeeded in separating two bases, the one soluble and the other insoluble in caustic alkalies, and have named them cephæline and emetine respectively; the latter is identical with the emetine of Glenard. These alkaloids have been prepared in a pure state, carefully analysed, and their salts studied. They possess a definite composition agreeing with the formulæ $C_{14}H_{20}NO_2$ for cephæline, and $C_{15}H_{22}NO_2$ for emetine; the latter alkaloid is thus the methyl compound of the former, the chemical relation between them being similar to that existing between morphine and codeine or between caffeine and theobromine. It is important to determine whether both of these alkaloids are active principles, and if so whether their action is the same or different in kind or in degree.

The following experimental investigation of the comparative action of cephæline and emetine upon certain tissues and organs was carried out in the pharmacological laboratory of the Owens College. It is by no means exhaustive, but it affords some information as to their relative activity and gives some indications of their probable therapeutic value. It also affords another example of the effect of introducing a methyl group into a physiologically active compound, and may therefore add something to our increasing knowledge of the relation of chemical constitution to physiological action. In all cases the hydrochlorides of the alkaloids were used for experimental purposes, and I have to thank Mr. Paul for kindly placing a sufficient quantity at my disposal. I desire, also, to express my indebtedness to Professor Leech, and to Mr. J. N. Platt who has taken many of my tracings.

CEPHÆLINE HYDROCHLORIDE.

General action.—Various doses of the drug were taken by myself and two volunteers, to whom my sincere thanks are due. In some cases the drug was taken on an empty stomach, in others after meals; in the latter case the previous meal was of the same character in experiments with the two alkaloids, and the drugs were administered after the same interval of time. The effect of 5 milligrammes (about one-twelfth of a grain) taken by myself was to produce nausea, giddiness, salivation, and slight retching, but no actual vomiting. The onset of the first symptom was about twenty minutes after a dose taken on an empty stomach, and nearly an hour when the stomach contained food. The effect was also greater in the former case. Pulse tracings showed a fall in arterial tension, which reached its lowest point about an hour after the administration, and the pulse had almost regained its normal character in two hours. The duration of the nausea varied from an hour to four hours. A dose of 10 milligrammes (about one-sixth of a grain) produced slight nausea in twenty-five minutes; this rapidly increased, with retching, giddiness, salivation, and an intense feeling of illness, until vomiting occurred about an hour after the administration. The nausea and other symptoms then

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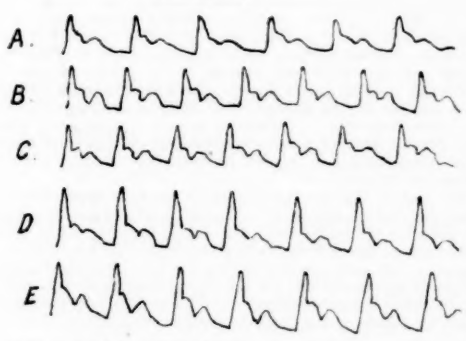
[1] A paper read before the Manchester Medical Society on Nov. 6th, 1895.
[2] Pharmaceutical Journal, August and November, 1894.
[3] Annales de Chimie et de Physique, Series 5, vol. viii., p. 233.

improved, but returned half an hour later for a short time; in two hours after the administration there was no feeling of illness. Pulse tracings showed a slight fall of pressure, which preceded the actual vomiting. In other persons 5 milligrammes (one-twelfth of a grain) caused either a

FIG 1.



Pulse tracings taken by a Dudgeon's sphygmograph. A, Normal pulse before taking the drug. B, 55 minutes after cephæline hydrochloride 10 mg. (⅙ gr.), and before vomiting; much nausea. C, 63 minutes after cephæline hydrochloride 10 mg., and after vomiting. D, 77 minutes after cephæline hydrochloride 10 mg. E, 110 minutes after cephæline hydrochloride 10 mg.

similar effect to that observed in myself or else the severe vomiting, which in my own case only occurred after a larger dose.

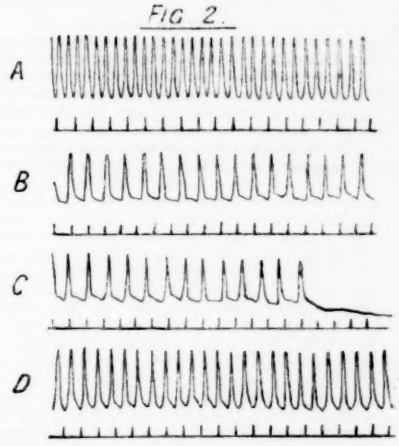
From the results of a number of experiments the chief points to be noted were: 1. The variations in the dose required by different individuals to produce vomiting; five milligrammes in one person produced an effect as severe as that obtained from ten milligrammes in another person. 2. The slow action of the alkaloid. In no case did vomiting occur within forty-five minutes after the drug had been taken. Larger doses would, perhaps, act more quickly, but the effect of ten milligrammes (one-sixth of a grain) was sufficiently violent to deter one from increasing the dose. 3. The secondary onset of nausea, and sometimes actual vomiting, which appeared after the first attack had passed off, in one case after an interval of two hours. It is not unlikely that this may be due to an excretion of the drug into the alimentary canal and reabsorption. Further experiments are requisite to determine this point. 4. The very marked salivation which preceded the vomiting, and which also occurred when vomiting was not produced. 5. The depressing effect upon the pulse. This was in some cases more marked after a small dose when vomiting did not occur than after a larger emetic dose. 6. Occasionally increased intestinal peristalsis was noticed, followed by a loose motion. 7. There was no noticeable effect upon the nasal mucous membrane, upon the skin, or upon the secretion of urine. The experiments did not give any information as to whether the drug acted upon the liver, save the fact that no excess of bile was present in the vomited matter.

On voluntary muscle.—The experiments were conducted by immersing the gastrocnemius muscle of a frog in a saline solution and stimulating it at regular intervals. The apparatus used was that previously described by me in a paper upon the Action of Quinine on Contractile Tissues.[4] The muscle was connected with a lever writing upon a smoked drum, the latter being either stationary during the contraction or rapidly revolving, according as it was desired to study the effect of the drug upon the vitality and power of the muscle or its effect upon the individual contractions. Cephæline hydrochloride in saline solutions containing 1 in 1000 of the drug acted as a moderately powerful muscle poison, and caused death of the tissue in from one to two hours. There was slight initial rise in the height of contraction, probably due to irritation of the motor nerve endings. There was no alteration in the shape of the muscle curve. The duration of the latent period was not affected until the muscle began to lose its vitality. Solutions containing a smaller amount of the drug produced less marked effects of the same character.

On the walls of the bloodvessels.—Pithed frogs and decapitated water tortoises were experimented upon. A cannula was inserted into one of the systemic aortæ, the other aortic trunks were ligatured, and the heart having been removed the outflow from the divided venous trunks was collected and measured at regular intervals. Saline solution (0·75 NaCl) was circulated at a constant pressure, and when the rate of flow had become fairly regular a similar solution containing the drug was substituted for a certain period of time, and then replaced by the unpoisoned saline. It was found that 1 in 5000 of cephæline hydrochloride produced a moderate contraction of the vessel walls, as shown by the diminished rate of flow. Return to or near the normal was easily effected when the poison was washed out with the pure saline, and the experiment could be repeated several times before the tissues lost their vitality. Solutions containing 1 in 10,000 and 1 in 20,000 had no contracting effect; in one experiment a slight dilatation occurred, but it could not be again obtained, and was probably not due to the action of the drug.

On the isolated frog's heart.—The heart of a frog was prepared in the usual manner with the cannula of a Williams' heart apparatus in the ventricle, and arranged to be fed with a saline solution (Professor Ringer's formula), while the beats were recorded on a slowly revolving drum. When pure Ringer's solution was replaced by one containing 1 in 20,000 of cephæline hydrochloride there was no immediate effect; a gradual slowing and diminution in the height of the individual beats was observed, and the heart stopped beating suddenly forty-six minutes after the perfusion of the poison was commenced. The pure Ringer's solution was then allowed to run through the heart in order to wash out the poison, and after four minutes it recommenced to beat, regularly and almost as powerfully as at first, but rather more slowly. After

FIG 2.



Isolated frog's heart. Cephæline hydrochloride 1 in 20,000. Williams' apparatus. A, Beat with normal Ringer's solution. B, 35 minutes after cephæline hydrochloride 1 in 20,000. C, 46 minutes after cephæline hydrochloride 1 in 20,000; sudden stop in diastole. D, Recovery, 15 minutes after the poison had been washed out and the heart perfused again with normal Ringer's solution. Time marker, marking every 5 seconds.

about forty minutes the experiment was repeated with a similar result as regards the slowing and loss of power; the rhythm then became irregular, and the heart stopped after twenty-two minutes' perfusion of the poison. There was no recovery after the second arrest. Similar experiments with a solution containing 1 in 10,000 of cephæline hydrochloride presented the same phenomena, but more rapidly induced and more marked in degree; the rhythm became irregular, and diastolic arrest occurred twenty minutes after the administration of the poison. Recovery was effected after twenty minutes' washing out with the pure Ringer's solution, and the beats were powerful, somewhat irregular, and double beats were present for about ten minutes. No more of the poison was given, but the contractions gradually

[4] Brit. Med. Jour., vol. ii. 1887.

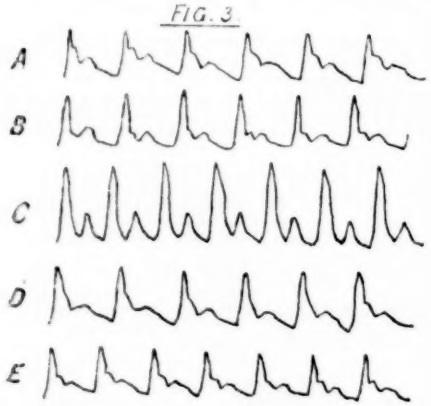
became more feeble, and the heart died in a diastolic condition sixty-five minutes after the first administration of the drug.

On the blood pressure.—In order to test the action of cephæline upon the blood pressure a cat was anæsthetised by chloroform, tracheotomy performed, and a tube inserted connected with an apparatus for administering ether continuously during the whole of the experiment. A glass cannula was inserted into the right carotid artery and connected in the usual manner with a Ludwig's kymograph writing upon a slowly revolving drum. Cephæline hydrochloride, 20 milligrammes (one-third of a grain), was administered by hypodermic injection, a slight fall of blood pressure (two to three millimetres of mercury) occurred after a few minutes, and the new level was maintained until a further dose of 10 milligrammes (one-sixth of a grain) was again followed by a fall of two to three millimetres, the latter fall being recovered from after fifteen minutes. The rhythm and rate of the heart were not affected by the drug and the animal lived for over two hours after the administration of the poison, and was finally killed while still under anæsthesia. No vomiting or attempts at vomiting were made, and it appeared that under complete anæsthesia the drug had hardly any effect upon the vomiting centre, the vasomotor centre, or the heart, in the doses administered.

EMETINE HYDROCHLORIDE.

General action.—A dose of 5 milligrammes (about one-twelfth of a grain) produced either no appreciable effect or after the lapse of half an hour slight nausea, giddiness, and salivation; pulse tracings showed lowering of tension during the period of nausea, and in one hour and a half recovery was complete. Doses of 10 milligrammes (one-sixth of a grain) produced similar but more marked effects with retching, but, in myself, no actual vomiting. With a dose of 15 milligrammes (one-quarter of a grain) giddiness, nausea, and retching came on in twenty-five minutes, rapidly increased, accompanied by great salivation and watery secretion from the nasal mucous membrane; in forty-seven minutes vomiting occurred and again a few minutes later. The nausea improved after the vomiting, but the feeling of illness and exhaustion continued, and remained some time after the nausea had entirely disappeared, some two hours from the administration of the drug. The pulse tracings showed marked lowering of the arterial tension, and this was at its maximum some time before vomiting occurred; it was partially recovered from before vomiting, but remained below the normal for some hours.

FIG. 3.



A. Normal pulse before taking the drug. B, 15 minutes after emetine hydrochloride 15 mg. (¼ gr.). C, 34 minutes after emetine hydrochloride 15 mg., much nausea, before vomiting. D, 42 minutes after emetine hydrochloride 15 mg., before vomiting. E, 50 minutes after emetine hydrochloride 15 mg., after vomiting.

About two hours after the administration a distinct increase of intestinal peristalsis was noted, with borborygmi and a desire to empty the bowels; this culminated in a loose motion. There was no noticeable effect upon the skin or upon the secretion of urine, nor did the vomited matter contain excess of bile.

On voluntary muscle.—Emetine was less poisonous to muscle than cephæline; a solution containing 1 in 1000 of the hydrochloride was fatal in about three hours. The shape of the curve was unaltered, and the irritation of the nerve endings was much less than with cephæline; contracture was scarcely present.

On the walls of the bloodvessels.—Emetine was more powerful as a vessel contractor than cephæline; 1 in 20,000 caused well-marked contraction; also 1 in 10,000 and 1 in 5000; after the stronger solution recovery was less complete than after cephæline in the same strength. Emetine, like cephæline, acted equally well, whether the spinal cord was intact or destroyed.

On the isolated frog's heart.—The effect of emetine was very similar to that of cephæline, both in kind and degree; the variations which occurred in different experiments were not greater than are usually found in a series of heart experiments when a number of frogs are used of varying vitality and power.

On blood pressure.—The effect of emetine hydrochloride upon the blood pressure of the anæsthetised cat was the same as that of cephæline—viz., a slight lowering after subcutaneous injection in doses of 10 milligrammes (one-sixth of a grain). No attempt at vomiting was made and the beat of the heart was unaffected. In one experiment 20 milligrammes (one-third of a grain) injected into the jugular vein produced death by failure of the heart in forty-five seconds.

SUMMARY.

Both cephæline and emetine possessed a powerful emetic action; the emetic dose of the latter was, however, about double that of the former. In non-emetic doses the degree of nausea produced by cephæline was also about double that produced by emetine—e.g., the intensity and duration of the nausea following 5 milligrammes of cephæline was much the same as that following 10 milligrammes of emetine. Both alkaloids lowered the arterial tension, and little difference was apparent in small doses, but the depression produced by the emetic dose of cephæline was less than that produced by the larger emetic dose of emetine; cephæline appeared, therefore, to be distinctly preferable where a non-depressing emetic was desired. Both alkaloids caused contraction of the bloodvessels after destruction of the brain and spinal cord, but emetine was distinctly more active than cephæline: 1 in 10,000 of the latter produced little if any effect, while 1 in 20,000 of emetine was followed by marked contraction. On the heart no appreciable difference could be made out, both produced slowing, weakening, and diastolic arrest of the isolated organ; recovery was easily effected when the poison was removed. It is doubtful whether the drugs in the doses administered to men would affect the heart directly; but the fact that 1 in 20,000 caused diastolic arrest in forty-six minutes renders caution necessary in giving larger doses of the alkaloids. Both acted as muscle poisons, but cephæline had the greater toxic power, and also caused irritation of the motor nerve endings and contracture. On the secretions, salivation was well marked wherever there was nausea. Emetine caused a flow of watery mucus from the nasal mucous membrane when a full dose was given; this was not noticed after cephæline. It is possible that the expectorant action of ipecacuanha is due to a similar action of emetine upon the other portions of the respiratory mucous membrane. Intestinal peristalsis and a loose motion at times followed the administration of either alkaloid; there was never any marked purgation. No effect was noticed upon the secretion of the skin or upon the amount of urine.

Assuming the view that emetine is methylcephæline to be correct, it would seem that the chief effect of the addition of the CH_2 group was to markedly reduce the action of the compound upon the convulsive or vomiting centre in the medulla oblongata, and also to diminish the irritating effect upon motor nerve endings. The methyl compound had, on the other hand, a more powerful action as a local vaso-constrictor. The addition of the methyl group did not appear to affect the other actions of the alkaloid. With regard to therapeutic use, only accumulated clinical experience can determine their relative positions. It seems probable that in cephæline we have a powerful and certain emetic, singularly free from depressing effects when given in doses of from five to ten milligrammes (from one-twelfth to one-sixth of a grain); its action, however, is too slow to prove of much service in cases of poisoning, but in all other cases where emesis is desired it appears well worthy of trial. In acute catarrhal and febrile conditions, as an expectorant and for all the uses of

ipecacuanha where vomiting is not desired, emetine in small doses seems likely to prove of considerable value, and also as an emetic in larger doses of from ten to twenty milligrammes (from one-sixth to one-third of a grain) when a more depressing action is required. The powerful local constricting effect upon bloodvessels may also prove useful in hyperæmic and inflammatory conditions.

The wide variations in the activity of the pharmacopœal preparations of ipecacuanha may not unlikely be due to variations in the quantities and relative proportions of the alkaloids which they contain, and the use of the pure alkaloids may render one of our most valuable remedies of still greater service.

Manchester.

CONSIDERATIONS IN RESPECT TO "RETURN" CASES OF SCARLET FEVER.[1]

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[AS is known to our readers, we never use the term "scarlatina," but always "scarlet fever." In the MSS. "scarlatina" was used throughout, it being the official habit of the Local Government Board to employ that term and not "scarlet fever."—ED. L.]

THE subject of this paper is that of so-called "Return" Cases of Scarlet Fever, by which I understand fresh cases of the fever occurring in previously invaded households under circumstances which lead to their being attributed to the return thither of recently discharged patients from isolation hospitals. The circumstances attending the so-called "return case" appear to be somewhat as follows. A household becomes newly invaded by scarlet fever, and the person first attacked is removed to hospital. During the eight or so weeks of his detention there the household frequently, though not invariably, remains free from further invasion by the disease. A few days after his return home, however, a fresh case—the so-called "return" case—occurs, and is regarded as being due to the arrival in the dwelling of this patient from hospital. In a certain proportion of instances, though by no means in all, the recently returned hospital patient is now found, upon examination, to exhibit some evidence of desquamation, or to be suffering from discharge from the nose or ears—a discovery which is naturally held to strengthen the belief in his having reintroduced infection into the household. Such, then, is a brief outline of the history of the ordinary "return" case. Theoretically, no doubt, the subject should be dealt with upon a wider basis, since it constitutes a branch of the more general subject of the dissemination of infectious diseases by discharged hospital patients. For not only do "return" cases probably occur in connexion with other diseases—at all events, it would so seem, in connexion with diphtheria—but it sometimes doubtless happens that discharged hospital patients initiate disease in households other than their own, and that they are also the means, perhaps, of introducing disease into schools and kindred institutions. Practically, however, it will perhaps now suffice to consider "return" cases of scarlet fever, for while on the one hand it is in connexion with this disease that most experience exists in regard to cases of the sort in question, on the other hand the subject, even as thus limited, will, I think, afford as many etiological problems as may be profitably referred to within the limits of this paper.

The subject of "return cases" of scarlet fever appears to be daily attracting increased attention, both among those engaged in public health administration and also among those responsible for the administration of isolation hospitals. That it is one of some importance will, I anticipate, be generally conceded, for if it is true that the return home of patients from isolation hospitals results in any appreciable number of instances in the reintroduction of scarlet fever to their households, to that extent, it would seem, are we at present failing to obtain what, on theoretical grounds, is to be regarded as the full benefit of isolation procedures. It is clearly of importance, then, that we should endeavour to ascertain the extent of our failure in this respect, and, if possible, the means by which it may be remedied. In regard to my treatment of the subject, however, I am not prepared to bring forward the results of anything approaching to an exhaustive statistical or other study of the matter. My purpose, indeed, is rather to seek information than to give it. Having upon one or two occasions been brought into official relations with the subject, I have become impressed with the need for its more systematic study, and it seemed to me that the mutual deliberations of those interested in the matter would form a valuable preliminary to such study—in the sense, at least, of tending to clear the ground and of thus leading, perhaps, to some approach to agreement as to the general aspect from which so-called "return" cases should for the most part be regarded; and this appeared to me the more desirable in view of the diverse mental attitudes from which the subject has hitherto often been approached. Lastly, it seemed to me that of all societies the Epidemiological Society should be especially fitted to throw light upon the matter, comprising as it does among its members not only many medical officers of health, some of whom must have been brought into contact with "return" cases of scarlet fever in their public health aspect, but also not a few medical superintendents of isolation hospitals who have had experience—and doubtless anxious experience—of such cases from the hospital standpoint; while the society also of course numbers many members who, having paid special attention to general etiological questions, might be expected to throw light upon some of the more obscure problems which, as I venture to think, are not improbably involved in the subject under consideration. So far as I am concerned, therefore, my main purpose is to endeavour to set out, as a basis for discussion, the several considerations which have occurred to me as being probably bound up with this matter, and to indicate, by the way, the particular points which have appeared to me as being especially deserving of attention.

I have spoken of the subject of "return" cases of scarlet fever as daily attracting increased attention, and that such is the fact is, I think, sufficiently evident from the comparative frequency with which communications respecting it have recently appeared in the medical journals and in the annual reports of medical officers of health. I do not infer from this fact that the hospital isolation of cases of scarlet fever was in earlier years unattended by mishaps of the kind, and, indeed, it appears certain, from such inquiries as I have been able to make, that such was not the case. Nor does it seem likely that any general increase has of late years occurred in the proportion of cases of a kind that might be regarded as "return" cases to the number of patients isolated. It may, therefore, I think, be surmised that the increased attention which the matter is now attracting is due partly to the absolute increase in the number of such cases consequent upon the general growth of isolation procedures and partly to the closer scrutiny into the origin of new cases of scarlet fever which has resulted from more complete sanitary organisation, and which has been especially facilitated by the compulsory notification of infectious diseases, the result being that not only are "return" cases now absolutely more numerous, but that such as do occur are more likely to be brought to light. With respect to the growth of hospital isolation as a method of dealing with scarlet fever, it appears, from a return made to the Local Government Board in the year 1879, that only some 18 per cent. of the sanitary authorities in England and Wales had at that time made isolation provision of any sort, and I learn from Dr. Thorne Thorne's report upon the "Use and Influence of Hospitals for Infectious Diseases" that the provision made even by such authorities amounted in many instances to provision only in name. According to a further return made to the Board in 1893 it appears, however, that the proportion of the total sanitary authorities then in possession of isolation accommodation of one or another kind was practically double that of 1879. During recent years, moreover, considerable improvement has taken place in the character as well as in the amount of isolation accommodation available, and it is certain that this has largely contributed to the increased use of isolation hospitals by the public. As a general result, then, of the increase in the number of isolation hospitals, and of the improvement in their character, a considerably larger proportion of the total cases of infectious disease occurring in the country are now removed to hospital than was formerly the case; and that this is especially true in regard to scarlet fever is, I think, evident from the fact

[1] A paper read before the Epidemiological Society on Friday, Nov. 15th, 1895.

that, whereas the earlier hospitals mostly owed their origin to the occurrence of, or to the fear of, epidemics of small-pox, typhus fever, or cholera, the isolation of scarlet fever has, it appears to me, most frequently afforded the primary object of the more recently erected permanent hospitals. As regards London—which is, of course, of especial importance for our present purpose—it was not until recent years that any systematic provision was made out of the public funds for the isolation of non-pauper cases of infectious illness, though it is true that, owing to one or another cause, a progressive increase from year to year had prior to this occurred in the proportion of the cases of scarlet fever in London which had been removed to the hospitals of the Metropolitan Asylums Board. With respect to this increased resort by the London public to isolation hospitals, the Registrar-General, in his annual report for the year 1891, points out that, whereas during that year 62 per cent. of the total deaths from scarlet fever occurred in the hospitals of the Metropolitan Asylums Board and the London fever hospitals, during the year 1878 the proportion was not more than 7 per cent.; and according to the annual report for 1894 of the Statistical Committee of the Metropolitan Asylums Board it appears that the proportion of the total notified cases of scarlet fever admitted to the hospitals of that Board increased from 42·6 per cent. in 1890 to 62·9 per cent. in 1894. Also, the committee further estimate that a few years previously the proportion of persons suffering from "fevers and diphtheria" admitted to their hospitals was not more than 11 per cent. From what has been said, then, it appears to me that the greater use now made of isolation hospitals, coupled with the greater facilities for the detection of apparent "return" cases when they occur, afford an adequate explanation of the growing attention which the subject is attracting.

The real importance of the matter, however, must of course depend upon the frequency with which these so-called "return" cases now occur relatively to the number of patients isolated. In the Report of the Statistical Committee of the Metropolitan Asylums Board for 1894, to which reference has already been made, it is pointed out that such cases "are not insignificant in number"; and attention is called to the statement of Dr. Birdwood, the medical superintendent of the North-Eastern Hospital, to the effect that at that hospital alone it was reported on sixty-one occasions, presumably during the year in question, "that a recovered patient had returned home from one of the Board's hospitals before the outbreak of illness amongst the other members of the family or household." If it could be assumed that the proportion of such cases heard of at the North-Eastern Hospital to the number of patients discharged therefrom represented approximately the proportion heard of to the patients discharged at the other hospitals of the Metropolitan Asylums Board, it would appear that during the year in question some 3½ per cent. of the dismissals from those hospitals were followed by—though, as Dr. Birdwood clearly shows, by no means necessarily the cause of—fresh cases in the households to which they returned. According, however, to a notice in one of the medical journals—which I have only just seen—of a report which has been presented to the Metropolitan Asylums Board by a sub-committee appointed to inquire into cases of illness alleged to have been caused by the premature discharge of patients from the Board's hospitals, it would appear that the assumption to which I have referred is not borne out by facts, since it is stated in this notice that cases of the kind were said to have occurred only in the proportion of 1 to every 285 discharges. Unfortunately I am unable to gather from this short account whether the percentage is calculated only upon cases heard of in the sense of complaints or upon all fresh cases occurring in households shortly after the return of patients from hospital as ascertained from notification returns. In any case it would seem that the rate was a low one, for in a paper on "'Return' Cases of Scarlet Fever," published in THE LANCET of June 22nd, 1895, by Dr. Chalmers, medical officer of health of the city of Glasgow, it will be seen that scarlet fever reappeared in 2·6 per cent. of the households to which, during the year 1894, the 2953 scarlet fever patients who were discharged from the three Glasgow fever hospitals returned. There appear to me, moreover, reasons for thinking that this Glasgow experience compares favourably with that of some other well-appointed and apparently well-administered hospitals. There can thus be little doubt that the rate will be found to vary in different times and places, and that where the figures are small the variations will be considerable.

Now what is the meaning of these so-called "return" cases of scarlet fever? How are they to be explained? Among the members of the re-invaded families the explanations which, perhaps not unnaturally, seem to find most favour are based upon an assumed negligence on the part of the hospital authorities: either, and perhaps most commonly, it is concluded that the recently returned patient from the hospital was, owing to want of care on the part of the hospital officials, allowed to leave that institution while still exhibiting indications of infectiveness which might have been, and ought to have been, detected; or it is taken for granted that, owing to defective arrangements at the hospital for disinfection, or to some other form of defective administration, infection was allowed to be carried from the hospital to the dwelling by the clothing or the hair of the patient, or in some other mechanical fashion. On the other hand, among those who regard the matter more especially from the hospital standpoint, the tendency seems perhaps rather to rely for explanation of "return" cases upon circumstances other than the direct infectiveness of the recently discharged patients themselves, and independent also of the conveyance by such patients of infection from the hospital in any preventable ways. Thus stress may be laid upon the possibility of the fresh case having resulted from some independent source of infection, its time relation to the return of the patient from hospital being regarded as probably a mere coincidence; or the fresh case may be attributed to defective disinfection of the dwelling and its contents by the sanitary authority after the removal of the primary case to hospital. And the likelihood of this last cause accounting for a proportion at least of the so-called "return" cases is often emphasised by reference to the fact that a fresh case of scarlet fever not very infrequently occurs in a household on or about the date upon which it had been arranged that the primary case should return home from the hospital, notwithstanding that, owing to one or other cause, that patient's return was unexpectedly postponed until after the occurrence of the fresh case in the dwelling. Such experiences, it is contended—and apparently not without reason—suggest that the fresh case in the dwelling probably owed its origin to the unpacking, in preparation for the home-coming of the hospital patient, of some garment which had been worn by that patient prior to his removal to hospital, and which had, upon his departure from home, been packed away in a drawer or box out of reach of any aerial disinfectant which might have been subsequently employed. Another explanation often given attributes a not insignificant proportion of "return" cases to the alleged infectivity for a certain period of the breath of recently discharged patients from fever hospitals, the lungs being regarded as mechanical carriers of the infective material with which they have become charged during the prolonged residence of the patients in an infected atmosphere.

That each of the explanations to which I have referred may, and probably does, correctly account for some uncertain number of so-called "return" cases is likely enough, but that they either severally or collectively account for them all appears to me to be open to considerable doubt. In regard to the explanations of the first class it is evident, of course, that any carelessness on the part of the medical superintendents of hospitals in respect to the discharge of patients would obviously be not unlikely to contribute to the occurrence of genuine "return" cases. The whole principle of isolation implies the need for the detention of patients in hospital so long as they are subject to any detectable condition which in the present state of knowledge must be regarded as indicative of infectiveness, and it is impossible to deny that a want of proper regard for this principle may in particular instances have led to the premature discharge of patients from hospital and the consequent re-introduction of disease into their households. But the view that culpable negligence in this respect affords an adequate explanation of "return" cases in general is difficult to reconcile with what, I take it, will be conceded as a fact—viz., that "return" cases occur in the practice of the most experienced and careful hospital physicians. Moreover, even if it were proved that "return" cases were mostly due to infection directly given off from the recently returned hospital patient, the attempt to fix the whole of the blame for such occurrences upon the hospital officials takes it for granted—(1) that the processes by which, and the circumstances under which, infection is given off from a scarlet fever patient are fully and certainly known; (2) that it is possible by the exercise of due care to determine precisely,

and without doubt, the period at which those processes have ceased to operate—in other words, the exact time at which a person has ceased to be infective; and (3) that patients who are capable of disseminating infection a week or so after their return home were necessarily, and in all cases, also infective at the time of their leaving hospital. However, these appear to be very large assumptions—assumptions, indeed, which involve certain important but difficult considerations in regard to the natural history of scarlet fever—to which I propose to refer presently. Similarly, notwithstanding that "return" cases have doubtless sometimes been due to imperfect arrangements at hospitals for the disinfection of the patients' effects, or to the fact of patients having been allowed, through careless administration, to take with them on returning home some infected book or toy, yet the circumstance that "return" cases occur in connexion with hospitals which, judged by our present standards, must be regarded as efficiently equipped and administered, makes it impossible, so it seems to me, to ascribe all cases of the sort to culpable negligence in these respects. The practice, indeed, of allowing patients on admission to bring nothing with them but a night garment, which is destroyed at the hospital, fresh clothes being sent from the home on the day of, and for the purpose of, their discharge, does not seem to entirely prevent the occurrence of "return" cases, even though such fresh clothes are sent direct to a suitably constructed discharging house, or "outbathing place," and though every practicable precaution is apparently taken, short of the absolute sterilisation of the discharge nurse, to prevent these clothes from becoming infected on the hospital premises. Further, as far as I am aware, no relation has at present been made out between the character of the procedures adopted at different hospitals in regard to the discharge of patients therefrom and the occurrence in connexion with such hospitals of so-called "return" cases. Indeed, so far as importance can be attached to a single observation extending over a comparatively short space of time, the experience of Glasgow in this respect is of some interest; for it appears from the paper by Dr. Chalmers, to which I have already referred, that during the year 1894 the percentage of "return" cases to dismissals was practically identical at the two principal isolation hospitals there, notwithstanding that, as he shows, "patients dismissed from Belvidere are subjected to a carefully designed system of bathing in a separately constructed 'clearing house.' ..... At Parliamentary-road Hospital there are no discharging-rooms, and the ward bath-rooms (which are to some extent liable to harbour infection) have to be used." It would by no means be safe to infer from this experience that a properly arranged discharging-house involves a needless expenditure and that it does not in some measure tend to diminish the occurrence of "return" cases. I have quoted the experience only as being consistent, as far as it goes, with the view that defective administration of the sorts in question hardly affords an adequate explanation of any large proportion of the total of "return" cases met with. The kindred suggestion which ascribes "return" cases to insufficient bathing of the patients during the later weeks of their detention in hospital or to the omission of the frequent application to their bodies of solutions believed to possess some disinfecting quality, must for the present, it appears to me, be put aside on similar grounds. I am not aware of any sufficient evidence that the occurrence of "return" cases has been prevented by the use of any particular application of the kind, and it can hardly be suggested that the generally admitted need for frequent bathing is systematically neglected at our best fever hospitals, or that the employment of any practicable means of ridding the surfaces of the body of infective material would not be adopted were any such means known of.

Coming next to the explanations of the other class to which I have referred, there can be little doubt that the occurrence of a fresh case of scarlet fever in a household shortly after the return of a patient from hospital is sometimes a mere coincidence, the fresh case being really due to other causes, such as defective disinfection of the dwelling by the sanitary authority, or to some outside source of infection; and that such may be not infrequently the case seemed to me to be indicated by an experience which recently came under my own notice. In that instance a relatively serious number of so-called "return" cases of scarlet fever occurred during a particular period in connexion with a country isolation hospital; so many, indeed, as to at first sight represent hospital isolation, as there carried out, in a very unfavourable light in regard to the limitation of the spread of the disease as compared with home isolation. The information obtained, however, sufficed to show that during the period in question the households within this hospital district from which patients were sent to hospital suffered as a class much more heavily from secondary invasion—apart altogether from the so-called "return" cases—than the households in the same district in which patients were retained at home throughout the whole period of their illness—a fact, no doubt, partly due to the circumstance of the former being households of a less well-to-do kind than the latter, and in part also to the further circumstance that the hospital class of households comprised on the average a larger proportion of persons at susceptible ages than the home isolation class. Certain facts, however, appeared to indicate that neither age distribution nor social condition sufficiently accounted for the greater incidence of secondary invasion, of kinds independent of hospital operations, upon the hospital class of households than upon the home isolation class—the inference from which would seem to be that some other factor or factors of scarlet fever production had operated more actively upon the former class than upon the latter. And, so far as the information went, it afforded the suggestion that one factor of the kind in question had perhaps been furnished by attendance at particular schools. On the whole it appeared to me probable that some unknown proportion of the so-called "return" cases had in this instance been due, not to the return of the patients from hospital, but to the cause or causes which had contributed to the excessive incidence of secondary invasion generally upon households of the hospital isolation class. This, I venture to think, is an aspect of the matter that is worthy of further study as opportunity offers, and in this connexion the possible influence of school attendance in its relation to alleged "return" cases is perhaps especially deserving of attention. The possibility of alleged "return" cases being part and parcel of a milk outbreak should also of course be borne in mind.

Proceeding with my review of the several explanations to which I have referred, it may, I take it, be concluded that some few of the so-called "return" cases are attributable to the unpacking of some imperfectly disinfected garment in preparation for the return of the patient from hospital—perhaps, as has been suggested, some comparatively new garment which had been intentionally withheld from disinfection lest it should be damaged by the process. But so far as my experience goes it has not appeared to me that variations in the occurrence of "return" cases are so closely related to variations in the efficiency with which the disinfection of dwellings and their contents is carried out as to suggest that such cases account for a large proportion of alleged "return" cases. Thus in the instance to which I have just referred as having recently come under my notice, the largest number of "return" cases occurred during the first of three succeeding years. At the end of the first year considerable improvements were adopted in one of the constituent districts of the joint hospital district concerned in regard to the measures taken for household disinfection. A steam disinfecting apparatus was provided, and, as I was informed, very special care was taken to secure the thorough disinfection of all articles which could be thought of as having possibly been infected by patients prior to their removal to hospital. Subsequently to the adoption of these precautions a considerable diminution occurred in the number of "return" cases heard of in this constituent district, which might certainly at first sight have been attributed to improved household disinfection; but that the whole of this diminution was not so brought about seemed clear from the fact that a diminution in the number of "return" cases occurred coincidently in the other constituent districts where similar improvements in disinfection procedures had not been carried out. On the whole, then, there can, it appears to me, be little doubt that a proportion of alleged "return" cases are really due to infection in some way reintroduced into the dwelling by the returned hospital patients themselves, and I must confess to having some doubt as to whether the view that such patients operate merely as mechanical carriers of infection by lodgment of infected material in the hair or by retention of such material in the lungs or the aural or nasal passages can be regarded as sufficient explanation of the facts as observed. At all events, at the joint hospital I have just alluded to I was assured that special care was taken in regard to frequent washing of the hair, and in order to minimise the risk of recently discharged patients infecting other persons by means

of infective material mechanically carried in their lungs or elsewhere it was the practice for all patients to pass a fortnight prior to their leaving hospital in a detached convalescent block specially provided for the purpose, except in cases where arrangements could be made for sending them to reside for a period in cottages in which there were no children. Finally, when they did return home a printed notice was given to their relatives warning them that the patients should for a time, as far as possible, be kept apart from other persons.

No doubt the "infective breath" theory presents difficulties, since it is impossible in the present state of knowledge to estimate its influence; but, while admitting its probable operation in an unknown proportion of cases, it would, I venture to think, be straining it unduly to regard it as a sufficient explanation of "return" cases generally.

If I am right in the views I have expressed, it follows that some share of so-called "return" cases owe their origin to the actual infectiveness of recently returned patients from isolation hospitals, though it seems to me unlikely, for the reasons I have stated, that the fact of such patients returning home in an infective condition can, as a general rule, be attributed to culpable negligence on the part of the medical officers of such institutions; and if that is so it indicates very clearly our need for further knowledge in regard to the pathology of the infectiveness of scarlet fever. Only in proportion as the processes by which infection is given off are clearly understood will it be possible to recognise the termination of those processes. According to a time-honoured and widely distributed belief, the infectiveness of scarlet fever is mainly associated with the process of desquamation. This belief, which is still generally held by the medical profession, recently received support from the Report of the Committee appointed by the Clinical Society of London to investigate the Periods of Incubation and Contagiousness of certain Infectious Diseases, in which it is laid down as regards scarlet fever that "infection certainly persists as long as there is any desquamation." That a belief so widespread, not only among the public, but also among those specially trained in the observation of disease processes, is without foundation seems in a high degree unlikely. There appears, however, to be a growing tendency among certain experienced observers to attach less importance to this source of infection, especially during the later stages of convalescence. That apparently susceptible persons do not necessarily contract disease upon being associated with desquamating scarlet fever patients is well illustrated by the significant experience recorded by Dr. Priestley in a paper read by him before the Epidemiological Society in March last, from which I learn that, owing to an outbreak of small-pox at Leicester, "not less than 120 children in various stages of desquamation after scarlet fever were sent to their homes," and that "no single second case occurred at any of these houses," although Dr. Priestley, in his capacity of medical officer of health, "carefully watched them for three months"; and many of us have probably met with experiences of an allied character, though on a smaller scale. It would be rash indeed to conclude from such negative evidence that the process of desquamation is never attended by infective property, especially in view of the weight of opinion and experience on the other side, and I would not for a moment countenance any relaxation in our present custom of urging isolation so long as any desquamation exists, pending at least a fuller knowledge of the pathology of infectiveness in this disease. But it does appear to me that the whole matter requires very careful study, and it seems at least likely that, whatever may be the part played by desquamation in this respect, we have hitherto underrated certain other modes by which the infection of scarlet fever is disseminated. I refer especially to catarrhal conditions of the nose, ears, and especially of the throat. In so far as it is safe to attach importance to the analogies between scarlet fever and diphtheria, it would appear not improbable that the throat plays an important part in the spread of the former disease, and the fact of this channel of infection not apparently being kept more prominently in view may possibly be due to an exaggerated importance attached to desquamation. For instance, it is not unlikely that in endeavouring to trace the origin of fresh cases of scarlet fever the discovery of traces of desquamation upon a recently recovered patient is often in itself regarded as a sufficient explanation of infectivity, and no further sign is sought, whereas, had examination been extended to the throat, other evidence of infectiveness might have been detected. This appears to be a matter that should be carefully borne in mind in connexion with the study of "return" cases of scarlet fever.

In view, also, of recent researches in connexion with enteric fever, the possible infectivity of the urine of scarlet fever patients would appear to be deserving of attention.

As regards practice, it is easy, however, to say that infectiveness must be presumed to exist so long as any desquamation or any catarrhal condition of the nose, ears, or throat remains; but so far as the prevention of "return" cases is concerned this dictum is by no means altogether satisfactory, for not only are some of the lesions in question apt to become so chronic that the continued isolation of the patient is obviously impracticable, but experience, unfortunately, seems to show that they sometimes recur, and may not, perhaps, even then be without powers of infectivity. This possibility of a recurrence of lesions which may possess infectivity is one of considerable importance in connexion with the subject of "return" cases, and is one which should be carefully held in view in passing judgment upon questions of hospital administration in this connexion. Whatever may be the significance of the fact in regard to the infectiveness of scarlet fever, there can, I think, be little doubt that the process of desquamation, although apparently completed, may be again renewed. And the same appears to be true in regard to the other lesions enumerated. Unfortunately, there seems to be little immediate prospect of bacteriology affording that measure of assistance in determining the infectivity or otherwise of such recurrent manifestations in the case of scarlet fever that it promises in regard to diphtheria, but that appears to be an additional reason for close study of the matter in its clinical aspects, and the subject is one upon which I would especially invite the opinions of members of the Epidemiological Society.

I should next wish, by way of suggestion, to briefly direct attention to certain considerations which may perhaps have a bearing upon the occurrence of "return" cases of scarlet fever. In the series of cases to which I have already on several occasions referred there appeared to me to be some indication of the operation of a seasonal influence, the "return" cases occurring most frequently, relatively to the number of dismissals, in connexion with patients who had been discharged during the latter half of the year. I also noted that, relatively to the number of dismissals, such cases occurred most frequently during the rise of the epidemic. It would be unsafe, of course, to draw definite conclusions from experiences of so limited a character, but, so far as they go, they are not inconsistent with the notion that the occurrence of "return" cases may be in part regulated by variations in the infectivity of scarlet fever, or the receptivity of individuals, at different times; including perhaps cyclical variations extending over considerable periods such as those to which Dr. Whitelegge has so ably directed attention in respect of certain indigenous diseases. In any case these appear to be questions worthy of attention in the future study of "return" cases of scarlet fever.

A matter of more immediate practical importance upon which also more extended observation is required is the possible operation of overcrowding of hospital wards as a factor in the production of "return" cases. As a result of his investigations in Glasgow Dr. Chalmers appears to have been led to the conclusion that sustained overcrowding of wards does conduce to the occurrence of such cases, and I have myself seen reason to regard overcrowding with suspicion in this respect. Whether its operation, if it does operate in the direction suggested, is due merely to the circumstance that the lungs of the patients leaving overcrowded hospitals are charged with more highly infective air than would otherwise be the case, or whether the surcharging of the ward atmosphere with infective material tends in some way or other to prolong the period of infectiveness of patients residing therein, owing perhaps to their undergoing slight reinfections, as suggested by Dr. Boobbyer, are difficult questions. In regard to the matter Dr. Chalmers remarks that "it would appear that, apart from the possible return of readily recognisable conditions such as desquamation, &c., after dismissal, there is a constitutional effect produced which renders the discharged convalescent a danger to susceptible persons who may be brought into close contact with him. That this results from saturation of the system is, I think, clear; but whether it is due simply to delayed elimination or to constant breathing of a saturated atmosphere by the convalescent, is matter for conjecture." Dr. Chalmers further refers to the fact, brought out by Dr. Sweeting, as to the increased frequency in the occurrence of albuminuria which

results from the aggregation of acute cases of scarlet fever as perhaps bearing indirectly on the point in question.

Before concluding there is one point in regard to the investigation of "return" cases upon which the opinions of members of the Epidemiological Society would be very helpful. I have frequently referred to such cases as occurring shortly after the return of patients from hospital. In statistical inquiries into the matter, however, it will usually be necessary to fix some time limit within which cases occurring after the return of patients may be reasonably classified as possible "return" cases, those occurring later being excluded on the ground of their being more probably due to fresh sources of infection; and the question is as to the time limit that should be adopted. This has sometimes been fixed as twenty-one days, and I think it will be agreed that if we err in adopting that period we err on the side of liberality. I observe that 93 per cent. of Dr. Chalmers' cases, which seemingly included all cases heard of, occurred within a fortnight after the dismissal of the patients from hospital; and it has also to be remembered that the period of incubation of scarlet fever is usually less than three days, and practically always less than eight. On the other hand, it of course by no means follows that a fresh case became infected immediately on the arrival of a hospital patient in the dwelling, especially if such case resulted from a recurrence of infectivity on the part of the hospital patient. On the whole, therefore, I am disposed to think that the period of twenty-one days, if somewhat liberal, is perhaps a not unreasonable one for statistical purposes. But, besides what I may call this "far-time limit," a "near-time limit" will also be required. In this respect it would perhaps be sufficient to exclude all alleged "return" cases occurring on the day of arrival of the patient from hospital.

Briefly summarised, the view which I have endeavoured to introduce is that, although a certain proportion of "return" cases may of course at divers times and places be due to carelessness in the discharge of patients or to some other form of culpable maladministration, whether on the part of the hospital officials or of those responsible for the disinfection of the patients' dwellings and effects, there are nevertheless in all probability some more obscure factors at work—factors perhaps closely bound up with the natural history of scarlet fever.

ON THE CAUSES OF BRADYCARDIA.

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IT is not unusual to find the importance of disordered action minimised as merely symptomatic of some recognisable diseased condition. Inasmuch, however, as apparently identical conditions may be associated with quite different manifestations of disordered action the latter may deserve separate study. In no branch of medicine is this more so than in the associated diseases and disorders of the heart. The action of that organ may be abnormally retarded, accelerated, or irregular in cases in which the chief local lesion appears to be the same. This disordered action, it may be, in such cases threatens life, and attention to a "mere symptom" may then become the paramount duty of the physician. A correct appreciation of the influence of such disordered action upon collateral phenomena may also lead to a right interpretation of the latter and of the action of remedial agents. Thus the character of the pulse in angina pectoris will be found to vary according as the cardiac action is quickened or retarded. The abnormally slow pulse under these circumstances will usually be found to be associated with an abnormally full left ventricle, and the retarded action of the latter, with the projection into the arteries at rare intervals of a large quantity of blood, which may impart fulness and a degree of softness even to an atheromatous vessel, which, less filled, would convey the impression of hardness and smallness. The peripheral effect may then be due to the action of the central organ and the modification of the pulse by medicines—a result of remedies acting directly upon the heart and not influencing it solely by changes in the peripheral circulation.

It is not my object in this paper to discuss all the questions of scientific and practical interest bearing upon abnormal retardation of the heart's action, but, limiting myself to the etiology of that condition, to endeavour to arrive at the present position of the question of bradycardia and the most probable lines upon which its further elucidation is to be sought. Our own countrymen, Stokes and Adams, were pioneers in this field; to a German (Grob) we owe the term "bradycardia," now generally adopted; and valuable contributions to the subject have been made in France. My own experience of the condition has accidentally been considerable, and has evoked the interest which I take in the matter.

Although statistics, to be of value as such, require to represent a large number of carefully considered facts, the *sexual element* in persistent bradycardia appears to be important. Of 37 cases which I have examined 31 occurred in males. This is not a large number to have examined, but the preponderance of the male sex which they show in those thus affected agrees with the results obtained by Grob,[1] who also found that in 140 cases of bradycardia of all kinds, persistent and transient, with and without symptoms, no less than 131 occurred in males and only 9 in females. Riegel[2] also notes this disparity. The belief is, therefore, justifiable in the meantime, until statistics prove the contrary, that the constitution and circumstances of the male more frequently result in bradycardia than do the like conditions in the female. Nor is this in accordance with the general liability of the sexes to cardiac disease, for statistics on a large scale (*vide* the Registrar-General's reports) show that woman is, on the whole, more prone to heart disease than man. In this respect the sex ratio of bradycardia resembles that of angina pectoris, which is considerably more common among men than among women. The *age* of patients suffering from persistent bradycardia in the cases collected by me was as follows:—

Under 20 years.	1 case.	Under 60 years.	6 cases.
,, 30 ,,	2 cases.	,, 70 ,,	10 ,,
,, 40 ,,	2 ,,	,, 80 ,,	7 ,,
,, 50 ,,	7 ,,	,, 90 ,,	1 case.

Thus, of the 36 cases in which the age was stated 29 occurred in the thirty years from the age of fifty, when average humanity may be said to be well past the meridian of life, to eighty, when the majority have terminated their existence. This is the period of gradually exhausting energy and of organic degeneration. The age of a man has been stated to be just that of his arteries, and the examination of a series of sphygmograms from youth to age exhibits a normal retardation of pulse, with heart-force increasing to meet the rising arterial pressure and then flagging under the burden of the increased labour, as shown by intermission in its action and other evidences of nerve and muscle failure. It is likewise of interest to examine more particularly cases occurring *before* the fiftieth year. Of such in the series noted by me there were six. The case under twenty—fifteen years of age—was one recorded by Strübing.[3] With the exception of being a little short-breathed as compared with some of his companions, the patient, a boy, was regarded in all respects as healthy. The commencement of his persistent bradycardia was immediately preceded by a long run to save time in going to school. Of the two cases under thirty, one, that of a man twenty-four years of age, also recorded by Strübing,[4] occurred in a subject who had undergone his military service without accident, but in whom bradycardia followed immediately upon hard work as a smith—work, however, it may be noted, which he had probably performed for some time, and quite as arduously, without apparent injury. The other case, occurring in a patient under thirty years of age, was that of a young woman aged twenty, the subject of laryngeal syphilis, recorded by Mr. Pugin Thornton.[5] Of the 2 cases in patients under forty one recorded by Strübing[6] was that of a labourer thirty-four years of age who suddenly became unconscious at work when twenty-eight years old, and who, with bradycardia, exhibited evidence of dilated heart. The other, recorded by Dr. Bristowe,[7] and occurring in a man thirty-one years of age, was regarded by him as a case of syphilis of the heart. A case

[1] Deutsches Archiv für Klinische Medicin, Band xlii., 1888.
[2] Zeitschrift für Klinische Medicin, 1890, p. 240.
[3] Deutsche Medicinische Wochenschrift, 1895.
[4] Loc. cit.
[5] Transactions of the Clinical Society, vol. viii., p. 98.
[6] Loc. cit.
[7] THE LANCET, March 7th, 1885, and Sept. 22nd, 1894.

mentioned by Tripier,[8] which recovered under the use of iodide of potassium, also had a syphilitic history and occurred in a male forty years of age. The same writer[9] likewise mentions the case of a man forty-five years of age who died from syncopal bradycardia, whose necropsy gave a negative result, and who had abused alcohol. The factors apparently playing a causal *rôle* in the case of these comparatively young subjects are those, therefore, which one would expect to find—namely, physical over-exertion and the degenerative influence of venereal disease and the abuse of alcohol.

As regards the *local conditions* associated with cardiac overstrain, it is permissible, in the absence of clinical evidence of gross and permanent disease, to argue from the ultimate recovery of patients that a heart, healthy as to its muscle, may become acutely dilated. In such cases, if muscular disease be excluded, the condition must be attributed to failure from undue expenditure in any form of nervous energy; but Leyden's observations[10] should render us very cautious in adopting this view. Of four cases examined by him after death—cases of acute dilatation from over-exertion in men previously considered healthy, and whose ages ranged from twenty-eight to thirty-five—in three there was fatty degeneration of muscular fibre, and in one fibrosis of the heart. These four cases of acute dilatation were not, however, associated with bradycardia, but with quickened action of the heart, a fact which causes me to remark that none of the anatomical changes associated with bradycardia either in tissue or mechanism is of itself sufficient to account for the retardation of pulse occasionally associated with them. It is much more common to find pulsation quickened than retarded under these circumstances.

Of pathological conditions in the intrinsic, spinal, cerebral, and sympathetic nerves of the heart unfortunately very little is known. In Mr. Holberton's case,[11] which was attributed to injury of the neck sustained in the hunting-field, Liston, who made the post-mortem examination, describes the pneumogastric nerves as being very large, the middle cervical ganglion on the right side as unusually developed, and the medulla oblongata as small and unusually firm. The last observation is interesting in view of other facts mentioned—namely, that the antero-posterior diameter of the foramen magnum was diminished and the atlas ossified to the occipital condyles. M. Huchard,[12] in commenting on this case, suggests that bradycardia may be dependent upon the state of the medulla oblongata. This is, of course, a mere surmise, and it must be remembered that in this case the patient was a gouty *bon-vivant* with an enlarged and dilated heart. M. Huchard further states, with a positiveness which, so far as I know, is not at present justifiable, and with a completeness of generalisation which is picturesque and pleasing rather than convincing, that, "localised in the heart, arterial sclerosis may cause symptoms of angina, in the bulb those of Stokes-Adams disease (bradycardia), in the kidneys those of interstitial nephritis, and so forth."[13] In short, arteriosclerosis has only to be located anywhere to rule supreme, and he designates the condition "cardio-bulbar arterio-sclerosis" one of the manifestations of his *hypertension artérielle* which all the world has for long known to be an important factor in disturbances and degenerations of the circulatory apparatus, but the recognition of which M. Huchard claims as a special glory. In emphasising his claims in this respect he very amusingly deprecates that *orientation étrangère* which, I presume, is French for the recognition of the work of others.[14] Dr. (now Sir William) Stokes of Dublin, who with his *confrère*, Mr. Adams, may justly be regarded as having first drawn attention, so far as is known, to the occurrence of abnormally slow pulse (and whose priority M. Huchard acknowledges with an *orientation étrangère* which surprises me) from his original observations,[15] was inclined to associate bradycardia with a systolic basic bruit in the aortic area indicative of an atheromatous state in that position. To this view Sir Richard (then Dr.) Quain took exception in his memorable paper on Fatty Degeneration of the Heart,[16] and Dr. Stokes later,[17] referring to Dr. Quain's criticism, states that he had no intention of regarding the aortic conditions as alone causal of slow pulse, but rather that the cause was to be sought in the whole condition of which such atheroma was a frequent expression. While reverently criticising this qualification of the original statement of this great clinician it may be remarked, however, that it is quite possible that the virtual or actual stenosis at the aortic orifice, due to dilatation of the left ventricle or change in the aortic cusps, or to these conditions combined, may have an influence throughout or at some stages of the case in inducing bradycardia. The behaviour of the over-full ventricle of aortic stenosis differs from that due to aortic reflux. In the latter case its action tends to quicken. In this opinion I am supported by Grob,[18] who quotes von Dusch and Marey as believing that such stenosis has an influence in inducing a retardation of the pulse, the latter believing that the heart contracts more rarely the greater the impediment to an evacuation of its contents. In face of impediment it appears to be a law of hollow extrusive muscles like the uterus and the heart to pause, at least for a time, in their action, then to attempt to surmount the obstacle by increased effort, and finally to lapse, if unsuccessful, into sluggish and waning attempts. A study, moreover, of the increasing resistance of the vascular system, which comes with age, shows that the retarding influence of vascular impediment may in a sense be regarded as a general stenosis. The examination of a series of sphygmograms of advancing age makes this very clear, although to induce true and persistent bradycardia other conditions besides senility must be present. While the degenerative cardiac change most frequently observed in the bradycardia of the aged appears to be fatty in character, this clinical sign has also been found associated with the fibrosis of chronic myocarditis. Grob[19] quotes some such cases from various sources. It is known, however, that these changes are much more frequently associated with an acceleration of the heart's action. Finally, the general habit of body of the patient—that is, whether he be stout or lean, whether his abdomen be protuberant or normal—does not seem to influence bradycardia directly, although, like the failure of thoracic, impediment to abdominal respiration may be a subsidiary factor in the case.

Failing, therefore, to find in grosser lesions a sufficient explanation of bradycardia, I shall shortly examine the physiological conditions in which it has been observed. In 3578 cases examined as to pulse-rate Grob[20] found bradycardia to be habitual and normal—that is, physiological—in 6 cases, or in 0·17 per cent. All these occurred in men, whose ages varied from twenty-five to sixty-five and their pulse-rate from 44 to 58 or 60. An habitual pulse-rate of 60 is scarcely bradycardial, but is below the average rapidity. It is of incidental interest to mention in this connexion, as Comby[21] does on Corvisart's authority, that Napoleon I. had a habitual pulse-rate of 40. The occasional epileptiform seizures which he is stated to have experienced may, in view of this fact, have been cardiac and syncopal rather than truly epileptic. Among physiological conditions associated with bradycardia, Grob and others mention the well-recognised case of lying-in women, but inasmuch as this condition occurs likewise in women who have merely aborted, it is probable that bradycardia in these cases may be in great measure the result of reflex inhibition of the heart. It must be remembered, moreover, that the lying-in or pregnant woman has, although the fact is not generally admitted, some normal hypertrophy of the heart, and that pulse tension and tonic contraction of the uterus are post partum directly related. The slow pulse has also, under these circumstances, been hypothetically attributed to the absorption of fat from the involuting uterine muscle. Finally, fasting has been observed to cause a retardation of the pulse.[22] Certain poisons, again, it is well known, produce bradycardia, and the mechanism of this form of pulse retardation is with great probability due primarily to their action upon the nervous system, however much muscular contractility may be ultimately involved.

The predominant *rôle* of the *nervous system* in influencing the pulse-rate is also argued by clinical experience as shown by the acceleration or retardation, the rhythmical or irregular, and the partial or complete, arrest for the moment of the heart's action. In many, although not in all, such cases, there is reason to believe that the cardiac muscle is healthy.

[8] Revue de Médecine, 1883.
[9] Loc. cit., p. 1002.
[10] Zeitschrift für Klinische Medicin, Band xi., 1886, p. 105 et seq.
[11] Transactions of the Royal Medical and Chirurgical Society, 1841, p. 76.
[12] Maladies du Cœur, 1893.
[13] Op. cit., p. 316.
[14] Op. cit., p. 797.
[15] Dublin Quarterly Journal, 1846.
[16] Transactions of the Royal Medico-Chirurgical Society, vol. xxxiii., 1850.
[17] Stokes: Diseases of the Heart and Aorta.
[18] Loc. cit., p. 599.
[19] Loc. cit., p. 597.
[20] Loc cit., p. 577.
[21] La Semaine Médicale, 1892, p. 265.
[22] Grob, loc. cit., p. 576.

Under normal circumstances cardiac inhibition and acceleration balance one another, and it is thus that the constant variations in arterial tension due to posture, temperature, food, and other agencies are equalised. Under abnormal circumstances it will also be admitted that notable acceleration of the heart's action is a more frequent phenomenon than its retardation. By a succession of short quick strokes the organ endeavours to effect what it cannot normally do with a smaller number. Acceleration may, therefore, be regarded on the whole as a phenomenon of action and redress. Unusual *retardation*, on the other hand, is very rarely physiological, and must be regarded as syncopal in tendency, whether it be transient or persistent. That is to say, the factors, or some of them, which are capable of accelerating the heart's action, are depressed or in abeyance. These factors are a certain character and quantity of blood, a certain state of the coronary circulation and of the cardiac muscle, a certain condition of arterial tension, and a certain state of cardiac innervation and reserve force. Now it is known that a dilated ventricle with an increased blood weight may pulsate rapidly, and that this may occur in the young and in the old alike, in the anæmic and in those whose blood is of normal character. It is known, also, that the heart may be accelerated when the myocardium is degenerated, when the ventricle is dilated and hypertrophied, and when the coronary circulation is unobstructed or partially obstructed. It is known, on the other hand, that certain poisons always retard the heart's action at a certain period of their action through the agency of the nervous system, and it is likewise known that experiment has demonstrated both retardation and acceleration to be directly due to the stimulation of certain nerves. It is, therefore, I think, permissible to conclude that unknown, but not necessarily unknowable, changes in the nervous endowment of the heart are primarily causal of both transient and persistent bradycardia. This conclusion does not, however, exclude the probable correctness of the opinion, based on clinical observation, that with a normal nerve tissue, and even with a normal nerve power, the blood weight and muscular condition of the heart may be such as to prevent that ready response which occurs under more normal circumstances. It is quite conceivable that cases may occur in which the nervous supply of the heart is more damaged than the cardiac muscle and bradycardia be then more dependent upon the state of the former than of the latter; again, that the alteration in the nerve structures may be of such a character and degree that the aid of cardiac muscular degeneration is necessary to produce bradycardia; and, moreover, that the factors in cardiac movement may be so balanced that tachycardia may occur under circumstances in which it would not have surprised us to find bradycardia. Clinical observation renders such an assumption to my mind both plausible and probable, but it is only by a more accurate knowledge of the changes in all these factors, a knowledge which we do not at present possess, that these interesting and important questions can be determined. If, therefore, there be in the intrinsic or extrinsic nerve-supply of the heart any barrier to the normal action of the accelerant nerves, one can conceive a cumulative distension of the chambers of the heart and insufficient activity of its motor nerves settling down into a persistent bradycardia syncopal in tendency, the natural consequence of which is the usually sudden death which closes the record of most cases of this disorder. I am aware of the unsatisfactory character of this largely hypothetical line of argument, but, however unsubstantial surmises of this kind may be, thought usually precedes action, and conception fruition, and, in so far as these remarks may be suggestive of the direction in which an answer to these problems is to be sought, I respectfully offer them for consideration.[23]

Professor Dehio of Dorpat, in an interesting and practical paper on Bradycardia and the Action of Atropin on the Sound and Diseased Human Heart,[24] came to the conclusion from a study of the effects of atropin in what he terms "cardial and extra-cardial bradycardia" that the explanation of slow pulsation has to be sought in the heart itself, as the inhibitory function of the vagi must be supposed to be abolished by the atropine. He admits that we are at present ignorant of the nature of that which causes the bradycardia, but suggests that it is due to nutritional changes in the automatic nerve centres in the heart, dependent in all probability upon local sclerosis of the branches of the coronary arteries leading to such centres. Inasmuch, however, as persistent bradycardia is met with at an age when the presence of such coronary sclerosis is highly improbable, his explanation only covers a certain number of cases. It must, however, be remembered that it is not only atropine which fails to accelerate such hearts, but that trinitrine, exertion, and other stimulants are equally ineffectual and that in the case of the latter agents there is no reason to believe that the vagi are placed out of action. I prefer, under these circumstances, to state vaguely and generally that the fault may lie in the accelerant as well as in the inhibitory system of the heart, and that the elucidation of this fault will require a patient investigation of the accelerant and motor tracts from their origin to their termination and in their relation to the semi-independent intrinsic nervous system of the heart. Cardiac neurology has probably as brilliant a future as neurology in general, and its increased investigation by pathologists is much to be desired. Parenchymatous changes resembling those in peripheral neuritis have been found by Vincent in the cardiac plexus in a case of heart failure after diphtheria—a failure of the heart which I have known to be bradycardial before the final syncope—but the record of such investigations is too rare.[25]

Upper Berkeley-street, W.

[23] Since writing the above I find in Pflüger's Archives for Physiology (Band lx., p. 491) gratifying experimental corroboration of these surmises, based upon clinical observation by myself and others. As the general result of experiments on rabbits, Dr. H. E. Hering is led to the conclusion "that the increase in the frequency of the heart's action during muscular exertion is chiefly connected with the integrity of the accelerator nerves, and that the increase of irritability of the heart-hastening nerves which occurs in normal animals is assisted by a simultaneous decrease in the irritability of the heart-slowing nerves." May not the converse also be true?

[24] St. Petersburger Medicinische Wochenschrift, No. I., 1892.

[25] THE LANCET, March 23rd, 1895.

A CASE OF MYCOSIS FUNGOIDES.

BY LESLIE ROBERTS, M.D.,
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PERHAPS there is no cutaneous disease in which we meet so many phenomena strange and not understood as in mycosis fungoides. The rarity of its occurrence, its apparent chronic innocent benignness passing into swiftest malignancy, our ignorance of the nature of the disease and the means of controlling it, the pathological problems which arise from it—these are not merely fitted to awaken scientific curiosity, but impose on those who are privileged to observe them the duty of contributing something, if possible, to their elucidation.

The patient, a spinster, was admitted into the Royal Infirmary, Liverpool, under my care on Nov. 5th, 1894. The only fact of etiological importance in her family history was that both her mother and sister had died from phthisis. Her mind was too dull and confused to give any clear, intelligible account of herself and the disease. Lately her strength and nerve had been severely tried by nursing her father, who was bedridden, suffering from paraplegia with incontinence of urine and fæces. The first appearance of her skin disease was referred by her somewhat indefinitely to four or five years ago, when a moist eruption appeared on the left arm, which resisted all treatment and eventually disappeared spontaneously. Later, redness and swelling were noticed in the right leg, and later still on the right wrist, where a "boil" developed which was lanced, with subsequent relief. This irregular state of cutaneous health continued till about the beginning of 1894, when the head and face became affected with a moist eruption. The patient was treated for eczema, but with no benefit. During the year the entire cutaneous surface became affected with a dry, pruritic, desquamative dermatitis. About three or four weeks before her admission to the infirmary small tumours, mistaken for boils, arose in various parts of the trunk, arms, and face. Her health was failing when by medical advice she came under my care on Nov. 5th, 1894. Inexact and obscure as this history is, we may note that during the early years of her illness the skin lesions were superficial, apparently benign, and took the form of a dermatitis. This is the rule in mycosis fungoides. The pre-tumour "eruption" is polymorphous—erythematous, eczematoid, and lichenoid. Philippson's

histological researches on the nature of these "eruptions" show that they are not at all of the nature of a dermatitis, but are veritable intradermic neoplasms confined to the papillary and subpapillary layer of the derma and associated with some increased cell activity in the epidermis. On admission the patient was found to be a fairly well-nourished woman of medium height, but in poor health. The skin over the entire body, head, and limbs was changed in respect of colour, density, integrity of parts, and configuration. The scalp was covered with excoriated spots, and much hair was lost; what remained was dry and lustreless. The surface of the scalp was desquamating freely. The face was red and moist, the condition resembling a weeping eczema; the discharge stiffened linen. The eyelids of the left eye were red and swollen, and could only be partially opened. A livid-coloured tumour extended from the outer canthus of the left eye to the left ear, part of the auricle of which it involved (Fig. 1). It was hemispherical in shape, slightly irregular, ulcerated in parts, moist with discharge, and soft and elastic to the touch. A flat tumour the size of a florin was situated on the forehead;

FIG. 1.

Showing left side of face; a livid-coloured tumour extends from outer canthus of left eye to left ear.

its margins sloped into surrounding unhealthy-looking skin. The discolouration of the trunk resembled, somewhat, that of a typhus skin, and was covered with fine scales harsh to the touch. The right breast was in part red and covered with scabs; several tumours, varying in size from a hazel nut to a pigeon's egg, arose discretely from the front and back of the trunk. The neoplasms arose gradually out of the surrounding skin and sloped upwards to a flattened apex, somewhat like a cushion pushed up in the centre. They were dull red in colour and soft and elastic to the touch; some were discharging an offensive-smelling pus, and others were ulcerating. There were numerous scab-covered points scattered all over the back of the trunk. The skin of the arms was thickened and rough, with numerous scab-covered papules. There was induration of the skin of the fingers, which were bent on the palm, and also considerable hyperkeratosis of the palms. (Fig. 2.) The nails were more or less affected by loss of lustre, flattening of convexity, and prominent longitudinal ridges. Both hands had a withered, dried-up appearance. The legs were considerably swollen and eczematoid in appearance; the skin was indurated and covered with thin scabs of yellowish colour. There was well-marked œdema of both dorsal surfaces of the feet which were covered with thin scabs; the outer side of the right foot was excoriated. The nails of the toes were much deformed and partially destroyed. Itching was very severe at times, but seemed to be intermittent in its attacks. The cutaneous lymphatic glands were not enlarged. The pulse was 100, the temperature 99·8° F., and the respiration 18. There was no cough or expectoration. The urine was slightly alkaline, of a specific gravity of 1022, with a slight cloud of phosphates on boiling.

To those acquainted with the features and natural history of this disease the diagnosis in this particular case presented no difficulty. The difficulty of diagnosis occurs in the early stage, when the pruritic "eruption" is apt to be mistaken for eczema, psoriasis, or pityriasis. If circumstances permit of the suspected eruption being microscopically examined, as Philippson suggests, the embryonic cellular, fibrillar condition of the upper layer of the derma, with numerous mitoses, is sufficient, according to this observer, to diagnose the disease even in this early stage.[1] The patient lived two months after admission to the

FIG. 2.

Showing withered, swollen hands, with bent fingers.

Infirmary. During this time the temperature fluctuated in a manner very similar to that of chronic pulmonary tuberculosis. There were intervals of exacerbation or exaltation of temperature, with periods of depression when the temperature was normal or subnormal. The temperature rose in the evening and fell in the morning. During the last month the patient had a moist cough and complained of great pain in the right side. Sleep was broken and disturbed a good deal by the feeling of heat and flushing, especially in the head, by paroxysms of itching, and by pain more or less constant. The condition of the tumours was constantly fluctuating; indeed, this is one of the most remarkable features of the disease. Growth of the swiftest sort was followed by involution equally rapid. Thus the tumour on the left side of the face was the size of a large orange at the time of her admission. In sixteen days it formed a huge tumour involving the entire side of the face and part of the scalp, and almost smothering the nose. Its involution was very rapid, and just before death it disappeared completely, leaving no cicatrix and but few traces of its previous

[1] For exact histological details of this stage see the original article by Philippson. Annales de Dermatologie et de Syphilographie, 1892, p. 528.

existence. Some of the tumours on the trunk suppurated, some ulcerated, and others involuted without breaking. The growth and involution of the larger tumours were accompanied by a profuse discharge with an extremely offensive odour. Another remarkable feature about the case—as, indeed, about every case of mycosis fungoides—is that no drug seemed to have any influence over its career. Carbolic acid lotion (1 in 20) was injected into several parts of the largest tumour to the extent of one drachm. It produced shrinkage and sloughing in the area injected; but as it seemed rather to aggravate the offensive discharge, which constantly oozed from the tumour, the "remedy" was soon abandoned. Pyrogallol was applied in ointment form to some of the smaller tumours, but with no benefit. A temporary amelioration of the general or diffused condition of the skin of the trunk and limbs was brought about by the change in the patient's mode of living. When removed from the fatigue and anxiety of nursing, a few days' rest in bed, with daily warm, mild, sulphur baths, had the effect of diminishing the eczematoid symptoms very considerably. Opium was given on account of the pain and uneasiness. Administered by the mouth it had but little effect, but more when morphia was injected subcutaneously. Six days before death the whole of the left arm, from the wrist to the shoulder, suddenly became swollen, hot, and of a livid colour. There was a small tumour in the axilla. The following day the swelling had gone. On the morning of Jan. 8th, 1895, the temperature suddenly rose to 103·6°, and a few hours later the patient quietly died in a state of unconsciousness.

Necropsy.—At the post-mortem examination, performed by Dr. Abram twenty-three hours after death, the body was found to be emaciated. The skin over the whole body was dry and shrunken—as it were, mummified—and of a dusky hue. There was no trace on the face of the tumours which had previously existed there. The lymphatic glands were not enlarged either in the integument or in the mesentery. There was no enlargement of lymphatic follicles in the stomach or in the ileum. The spleen weighed 5 oz. The kidneys were slightly injected. The liver weighed 52 oz. and was paler than normal. In the right lung there were pleural adhesions posteriorly, and the pulmonary tissue was emphysematous. There were some pneumonic patches breaking down in the right apex. The weight of the lung was 38 oz. The posterior surface of the left lung was covered with tough lymph, and the parietal pleura was injected. The lower lobe contained a large cavity with a smooth lining filled with puriform blood-stained fluid. Cover-glass impressions stained with fuchsin and methyl blue showed abundant tubercle bacilli. The heart was normal except for a little atheroma of the mitral valve. The necropsy confirmed what was known before—namely, that this neoplasm does not form secondary growths in the interior of the body. It is essentially a disease of the derma arising from the connective tissue cells by active proliferation. The tuberculous lesion of the lung must be considered as a coincidence and probably caused the fluctuating temperature.

What is the nature of mycosis fungoides? Is it produced by a definite micro-organism? These questions intrude again and again on our ignorance and have been variously answered. I shall briefly relate my own experience and then allude to the results of others. During life a small portion of the large tumour was excised, and inoculations were made by Professor Boyce in the following way. The surfaces of the piece of tissue were sterilised by a red-hot cautery, and a sterilised fine-pointed glass tube was pushed into the interior, some juice sucked up, and then transferred to four peptone agar and two agar beer-wort (artificial) tubes. The peptone agar tubes were placed in an incubator at 36° C., and the two latter in another incubator at a temperature varying from 25° to 30° C. After two months growth was found in only three of the six tubes, but these three contained specimens of the same organism. To the naked eye they resembled the staphylococcus albus, a vegetation which, when grown on nutrient gelatine, looks like a drop of white paint. The organism in question, however, differed from all the pus organisms in respect of its rate of growth, which was exceedingly slow. In two months the vegetation attained at 36° C. a diameter of 2 mm., and at 30° C. less than half this. The fungus in question was a micrococcus 0·5 to 1 μ in size, not forming zooglœar masses while living, but isolated or attached in twos and threes, and exhibiting active Brunonian movement. Blood examined before death did not contain cocci. It was taken from a finger tip remote from the tumour. I am inclined to regard this micro-organism as adventitious and not pathogenically connected with the disease. There is very little uniformity in the results of other investigators. Rindfleisch found streptococci within the vessels, but the value of this evidence is vitiated by the fact that his patient died from septicæmia. Hochsinger and Schiff purport to have found micro-organisms within the cells of the neoplasm. Without disputing the trustworthiness of their observations (although such observations are attended with the greatest difficulty on account of the granular condition of the protoplasm) we require evidence, which now is wanting, before we can accept their conclusions regarding these organisms. On the other hand, many observers have failed altogether to discover, after careful and proper research, any micro-organisms either in the blood or in the cells of the neoplasms. This was the case in Unna's patient, investigated by Philippson, and to this negative list may be added the names of Payne, Köbner, Dönitz, and Lassar.

With regard to the histology of the case it should be noted:—

1. *Skin free from tumour and forming seat of "eczematoid eruption."*—The portion of skin was taken from the outer side of the thigh. The primary and essential changes had taken place in the papillary body (including the portion immediately beneath the papillæ). This portion of the derma was differentiated from the subjacent part by a sharp line, and after hæmatoxylin staining became striking and conspicuous. The normal fibrous tissue had been replaced by a cellular neoplasm, not by cell infiltration, for there was not a trace of inflammatory action, consisting of cells derived from the pre-existing connective tissue cells, round or oval in shape and nucleated. The fibrillæ were sparse and delicate. The papillæ were narrower and a little longer than normal. The most conspicuous feature in the pars reticularis was the rhomboidal meshwork of hypertrophied elastic tissue. This was very noticeable even without special staining. The elastic meshwork was filled with a granular matrix which stained with carmine. The white fibres were inconspicuous. The connective tissue corpuscles were increased. The epidermis was slightly altered. The cones were broader and a little longer than usual in this position and the corneous layer somewhat thicker. The sweat glands appeared to be normal. There were no follicles in the piece of tissue examined.

2. *Skin from the palm in which the epidermis was very much hypertrophied, but throughout the whole clinical history was free from "tumour" formation.*—(*a*) *Epidermis:* This was about three times the average thickness; the hyperplasia was noticeable in all the layers. The germinating layer consisted of two or three rows of cells whose nuclei were more deeply stained than those of the superjacent cells. The granular layer was increased in thickness. The prickle cells were swollen and granular; the intercellular spaces were a little wider than normal. The horny layer was enormously hypertrophied and had some peculiar features; the cells in the lower two-thirds of the stratum were enucleated and swollen and separated apparently one from another by shining and refractile clefts. In addition to these intercellular clefts there were numerous irregularly shaped spaces filled with some granular material fixed with absolute alcohol and stained blue by hæmatoxylin. Some of these spaces measure 60 μ in length and about 20 μ in breadth, others were much smaller than this, and others, again, considerably longer. Probably these represented intra-epidermic vesicular collections of fluid, but whether œdematous or inflammatory I could not determine from the microscopical appearance. (*b*) *Papillary body:* The connective tissue cells were much increased, but the fibrillar element was still apparent; it was not so highly cellular as in the specimen taken from the thigh. There was a total absence of cell infiltration. The capillaries were distended and more numerous than in the specimen from the thigh. (*c*) *Derma:* The pars reticularis was not so obvious or the elastic fibres so large as in the specimen from the thigh. The connective tissue corpuscles were much increased in number. Strands of spindle-shaped cells ran horizontally through the derma; they seemed to invest capillaries.

3. *The scalp.*—A portion was selected free from tumour, but otherwise unhealthy. The epidermis was rather thinned than hypertrophied. The papillary body was more or less cellular. The follicles were considerably affected so far as

concerned the papillæ and fibrous investments; these participated in the cellular change which affected the papillary body. There was some wasting of the bulb and pilogenic cells, but otherwise the epithelial portions of the follicle appeared normal. A noticeable feature was the very oblique direction of the follicles, which was greatly in excess of the natural obliquity. This oblique direction was likewise taken by the epithelial cones and dermal papillæ. Caustic potash solution had the effect of more or less completely correcting this obliquity. The reticulate arrangement of the elastic fibres was well seen.

4. *Tumour in early stage.*—Elastic tissue enters very largely into the construction of both the early and the late fungating tumours, but I found it rather more plentiful in the young tumours. It was disposed in the form of a meshwork which became very noticeable after maceration of sections in a solution of caustic potash. The only real distinction between the early and late tumours seemed to consist in the closer packing of the embryonic cells in the latter. Bloodvessels were scarce and formed in this respect a notable contrast with sarcomata. As regards the epidermis, my sections did not show the passivity and thinning which Philippson describes. On the contrary, there was a highly irregular hypertrophy of the epithelial cones consisting of granular and unhealthy cells. In some places the cones were enlarged and in others entirely effaced. Cup-shaped depressions in the horny epidermis filled with corneous tissue were noticed in the sections of the fungating tumours.

It must be confessed that the facts of mycosis fungoides are among the dark writings of pathology, and that we wait expectant of the coming interpretation. Viewing my case in the light of the now extensive literature of the subject, it seems that we may deduce the following propositions: 1. There is neither clinical nor histological unity in the picture of mycosis fungoides, but variations of which the limit is not yet fixed. 2. From beginning to end the disease is neoplastic and not inflammatory, the so-called eczematoid lichenoid eruptions are neoplasms *en nappe*.[2] 3. That the papillary body is *conspicuously* differentiated from the derma proper, that the origin of the disease is probably in the papillary body, and that the change consists in an over-multiplication of the pre-existing connective tissue corpuscles. 4. That the rest of the derma is overcellular and that there is an increase in the reticular elastic tissue which is obvious without special staining or maceration. 5. That the disease from the point of view of its evolution and anatomy presents suggestive analogies with embryonic cutaneous tissues and embryonic processes—e.g., rapid evolution followed by rapid involution. 6. That the term "granuloma," being vague and generic, is not a wisely chosen substitute for the name "mycosis fungoides." 7. That there is at present no evidence worthy of confidence for believing in the microbic origin of the disease. 8. That, while the disease is allied clinically to sarcoma cutis, there are many notable differences—thus, the mycosis tumours involute very commonly, and may disappear entirely, leaving a disorganised skin but absolutely no scar; they do not spread into the interior by the veins or by the lymphatics. The chief seat of mycosis is the papillary body, but in sarcomata, according to Funk, we find the densest cell masses in the subpapillary layer, the papillæ, however, being free. 9. That mycosis differs from lymphadenoma (*lymphadénie cutanée* of the French authors) by the fact that the lymphatic glands and spleen are not generally affected, and may be absolutely free from beginning to end of the disease.

Liverpool.

[2] This was first pointed out by Philippson.

ROYAL METEOROLOGICAL SOCIETY.—The opening meeting of the present session was held in the new building of the Institution of Civil Engineers on Wednesday evening, the 20th inst., Mr. R. Inwards, F.R.A.S., President, being in the chair, when a paper by Mr. J. Eliot, F.R.S., was read on "The Origin of the Cold Weather Storms of the Year 1893 in India, and the Character of the Air Movement on the Indian Seas and the Equatorial Belt, more especially during the South-west Monsoon Period." This was really a discussion of the data contained in the "Indian Monsoon Area Charts," the publication of which was sanctioned by the Indian Government for the two years 1893-94.

A NOTE ON

THE THERAPEUTICS OF SALINE LAXATIVE MINERAL WATERS.

BY THOMAS D. SAVILL, M.D. LOND., M.R.C.P.

1. *Habitual constipation.*—When first I took charge of the 250 patients in the Sick Wards of the Paddington Workhouse one of the chief difficulties I had to contend with was the troublesome constipation among them. It was of a very widespread and obstinate kind, apparently the result of some cause or causes acting in common, and after careful investigation the chief of these causes appeared to me to be the routine administration of compound rhubarb pill, which had been distributed wholesale by the attendants. This medication after temporarily relieving the constipation was usually succeeded by constipation more pronounced than before; a chronic constipation which by-and-bye, in the course of a few months, defied all but the most violent purgatives. Of these the following pill is the chief example:—Croton oil, 1 minim; resin of podophyllin, 1 grain; calomel, 2 grains; and extract of Barbadoes aloes, 1 grain. It was known as "pilula fortissima."

This result — succeeding constipation — has been met with in my experience after almost every form of vegetable purgative such as is usually administered in the pill form. The bowels will act two or three times on the next day, and this expenditure of energy is followed by two or three days' inaction. Now this objectionable torpor of the intestines does not, as far as my experience goes, follow the use of natural saline purgatives. For this reason, amongst others, I have largely prescribed them both in hospital and in private practice; and after a course of two or three weeks its effect seems to be to regulate the bowels so that they acquire a habit of acting without artificial stimulation. Indeed, so much more simple and efficacious is this method of treatment that it is a matter of surprise to me that the habit of taking pills should continue to hold the wonderful sway it does in the mind of the general public.

2. *Plethora.* — This method of treatment seems to be specially useful in persons of a full habit of body, who suffer, perhaps, also from the effects of living too well, and under these circumstances it may be continued for long periods of time with none but beneficial results. The habitual administration of a natural saline laxative water in such cases does not produce the irritating effects on the gastro-intestinal mucous membrane which invariably follow constant recourse to pill purgatives. It may be necessary in such cases to administer larger doses, which can be done without fear, and possibly twice a day, continuously.

Nearly a year ago a gentleman aged thirty-four years consulted me for a most alarming epistaxis which had occurred on two occasions. He had for some years been subject to headaches, and these had been particularly severe just prior to the attacks of epistaxis. After careful investigation I could ascertain absolutely no cause except a plethoric habit of body, of which he presented a very marked example. I therefore placed him on a course of matutinal libations of Hunyadi Janos water (half a tumblerful) for a month. He has continued the treatment off and on ever since, and now he declares that he feels quite another man; he is free from both headaches and epistaxis and is much better in health, fitter for work, and lighter in spirits, though his mode of life in other respects has not materially changed. One is tempted to ask why such patients should be sent to Carlsbad and similar places when the treatment could, with the coöperation of the patient, be quite as efficiently carried out at home.

3. *Liver disease and portal congestion.*—"Hæmorrhoids," even in the absence of actual disease of the liver, constitute one of those troublesome minor ailments which may be relieved entirely by this method of treatment, and the soft, easy evacuation which is the invariable result is a great source of comfort to the patient. Congestion of the liver, so frequent in the Anglo-Indian, and which also arises as a consequence of cardiac or long-standing pulmonary disease, often gives rise to uneasiness in the region of the liver, which prevents the sufferer from lying on the right side and may even determine recurrent gastric derangements and transient jaundice (non-obstructive, since the stools are even darker than natural). These symptoms yield very readily to

the same method of treatment. Even in the early stages of cirrhosis of the liver much good may be done by such treatment, which relieves the portal congestion very markedly. I have also employed the same method frequently in cases of catarrhal jaundice, and here it seems to act very beneficially on the mucous membrane of the stomach and duodenum. There is, of course, a very large element of gastritis in such cases, and an appropriate mineral water appears on this account to possess very marked advantages over the use of artificial saline or pill purgatives. Given early in the morning it clears the stomach and the alimentary canal in general of any irritants or undigested food which may be present, and at the same time seems to allay the irritability of the stomach and intestines.

4. *Dyspepsia.*—In atonic dyspepsia the food which escapes complete digestion from day to day undergoes fermentative changes resulting in the production of various irritating products, which not only act as local irritants but may be absorbed into the blood and determine general disturbances of a more or less serious kind. These products of incomplete digestion may be swept out each morning and the irritability of the mucous membrane allayed in the manner just mentioned.

5. *Lithæmia.*—This condition is probably due either to an imperfect elaboration of food in the first stages of digestion in the alimentary canal or to imperfect nitrogenous metamorphosis in the liver, or occasionally, no doubt, to both these causes in association. It is manifested by the habitual deposit of lithates in the urine, and a characteristic headache, on which the researches of Haig have thrown so much light. There are also present a general disinclination for sustained worked, pains in the limbs, irritability of temper, and generally dyspeptic symptoms. In my experience all these symptoms may be markedly relieved by a course of some natural laxative and saline mineral water taken in the morning, combined with the administration of a mixture of bark with dilute nitro-hydrochloric acid, taken half an hour before meals during the day. The one clears out undigested food of the day before, while the other promotes digestion and gives a tone to the alimentary tract.

6. *High arterial tension.*—Reference has already been made to the value of this class of remedy in cases of cardiac disease attended by passive congestion of the liver, but the beneficial effects are not less marked in cases associated with heightened arterial tension, which may be a very prominent symptom in other conditions. As an instance I may mention a man aged forty-five years suffering from breathlessness and with a pulse remarkable for its high tension, who consulted me about six months ago. He had lived freely, but had suffered no illness. The area of liver dulness was slightly increased, the enlargement being apparently due to temporary congestion, seeing that it rapidly subsided under treatment. Transient albuminuria in a urine otherwise normal also suggested simple congestion of the kidneys. The arteries were not notably thickened. There was slight increase of the cardiac area to the left, with a too forcible impulse, indicating hypertrophy of the left ventricle. No murmur was present. The patient complained of more or less persistent headaches. I ordered him bark and alkalies for three days, together with a course of Hunyadi Janos water (one-third of a tumblerful twice a day), and since that time he has taken the water daily in the morning. The results of the treatment were that in the course of a week the blood-pressure fell to normal, and the albuminuria and his other disagreeable symptoms entirely disappeared, not to return up to the present time. He states that he is now in better health than he has been for years past, but he writes to me saying that if he ceases to take his morning dose of water for a day or two the headache returns. It seemed probable that the heightened arterial tension in this patient was due to cardiac hypertrophy, but cases of arterial fibrosis, granular kidney, and gouty and other conditions in which high arterial tension is a prominent feature may be similarly relieved by the same treatment. The most reasonable explanation of its action in this respect is that it dehydrates and purifies the blood.

The value of this method of treatment in various impure conditions of the blood cannot well be over-estimated. The loss of energy so characteristic of prolonged town life is most probably due to deficient oxygenation within the tissues of the body. As a consequence of this a number of excretory or waste products are retained within the body which, if properly oxidised, would be readily excreted. If these imperfectly elaborated products be constantly augmented by incompletely digested food-stuffs retained within the intestines and partially absorbed therefrom, a great additional strain is thrown on the oxidising functions of the body. By the treatment suggested not only can these be swept out of the intestines, but by dehydration of the blood, the blood itself, especially that of the portal system, is purified.

7. *Anæmia.*—Pupils of the late Sir Andrew Clark will remember that he used to regard constipation as the main cause in this disease. As a result of the costiveness, ptomaines and several imperfectly formed products of digestion were absorbed into the blood and overtaxed the oxidative processes of the body. At any rate, cases of chlorosis are often greatly improved by free relief of the bowels even without the administration of iron.

8. *Method of administration.*—As to which of the various natural saline laxative waters is the best to accomplish these ends there may perhaps be different opinions. The three mineral waters chiefly available for the above purposes are Carlsbad (Sprudel being the favourite spring), Friedrichshall, and the Hungarian water Hunyadi Janos. The analysis of these three waters is here given for comparison in terms of grains per gallon, only the principal ingredients being given:—

—	Carlsbad (Sprudel).	Friedrichshall.	Hunyadi Janos.
Sulphate of sodium	200	465	1573
Sulphate of magnesium	—	395	1568
Bicarbonate of sodium	90	—	47
Bicarbonate of calcium	20	—	55
Chloride of sodium	87	611	119
Chloride of magnesium	—	302	—
Sulphate of calcium	—	103	—
Silica	10	3	—
Analysis by	Gottl.	Liebig.	Bunsen.

All three contain a small quantity of CO_2 when first drawn from the source. Carlsbad water I have found useful in cases of genuine gouty or rheumatic affections of the joints, probably on account of the relatively large proportion of alkaline carbonates and sodic chloride contained. The dose, however, must be one or two tumblerfuls once or twice a day. Neither the Sprudel nor the other spring is very strong in laxative salts (about 13 grains of sulphate of soda in a tumblerful), and it has not proved so efficacious in the various conditions referred to as either Friedrichshall or Hunyadi. Friedrichshall contains a higher proportion of the sulphates of soda and magnesia (60 grains to the tumblerful), and is more suited to the present purpose; but it contains practically none of the alkaline carbonates and a very high percentage of the chlorides of sodium and magnesium. It is probably on this account that one cannot give sufficient of it to have a decided laxative effect without producing unpleasant thirst and dryness of the mouth. The usual dose is a wineglassful to half a tumblerful, and this hardly has the desired effect in clearing out the contents of the bowels. It contains, moreover, a fair proportion of sulphate of calcium, which has, if anything, a constipating counter-effect. I have never felt satisfied of the therapeutic value of this last-named salt, though I have had an extensive opportunity of trying it.[1] Friedrichshall water has generally seemed to me to be most useful in renal and urinary cases. Hunyadi Janos water is very rich in laxative salts, containing nearly 200 grains to the tumblerful, or twice and a half as much as Friedrichshall, and thirteen times as much as Carlsbad. It is, I think, the saline laxative mineral water most suitable for the various conditions above mentioned. It is prompt and certain in its action, and does not leave behind it a torpid condition of the alimentary tract. About one-third of a tumblerful or more, adapted to individual requirements, with or without warm water, taken each morning on waking, is generally sufficient to produce a loose, comfortable evacuation of the bowels within two hours, and without the griping which often attends other purgatives. Patients say it is less disagreeable than other waters. It also contains a fair proportion of sodic chloride and the two alkaline salts, which seem to impart to it a mild diuretic action, thus increasing excretion in both directions. It is probably the bicarbonates of soda and lime

[1] St. Thomas's Hospital Reports, vols. xiii. and xiv., 1884–85.

which have the beneficial effects mentioned on the mucous membrane of the alimentary canal, and their proportion is just sufficient not to impair the laxative action of the other salts. It is the bicarbonate of lime which seems most beneficial in this respect. To get this local effect on the stomach and intestines about a quarter of a tumblerful with warm water should be given twice a day, always on an empty stomach.

Remarks.—It is not claimed that there is anything very new in the foregoing. The matter is referred to and these experiences are recorded because in my opinion a deeply rooted habit has in this instance been the means of obscuring an improved method of treating several minor but inconvenient ailments, and some more serious ones in their earlier stages. The advantages to be gained by the mineral water treatment over that by pills much more than counterbalance the convenience of carriage, which is the only one that can be urged for the latter: as a matter of fact, it is only on a few occasions that this can be allowed to have any weight.

Upper Berkeley-street, W.

SARCOMA OF SACRUM OBSTRUCTING LABOUR.

By J. FERGUSON LEES, M.B., C.M. GLASG.

ON Monday, April 22nd, 1895, I was sent for to see a married woman aged twenty-five years, who was suffering from retention of urine, vomiting, and diarrhœa. The patient was in a condition of extreme emaciation and prostration, and obviously very ill. The tongue was slightly furred, the temperature normal, and the pulse-rate 110. The skin was moist, and she complained of cold, clammy sweats. The lungs were healthy. She stated that she was in the ninth month of her pregnancy and had already had three children, the last one having been born fourteen months before. During her previous labours, beyond the fact that they were tedious, nothing worthy of note had occurred. Since the birth of her last child she had not been in good health and had suffered at intervals for the last three months from attacks of vomiting and diarrhœa with colicky pains. She also complained of having partial loss of power in the lower limbs and of suffering from what she described as "sciatic pains" in her legs. The paresis had been first noticed about four months previously, but she had been suffering from the pains in her legs for about eight months. For some days she had had great difficulty in micturition, and during the previous twenty-four hours had been unable to pass any urine. On passing a catheter about two pints of reddish-brown urine, which was highly alkaline and of an offensive odour, were drawn off. She had had some slight difficulty in micturating for the last six weeks, having had to "strain" very much each time urine was passed; but it had only been within the last week that the difficulty had become very great. The patient's health had been very good previously to her marriage, but since the birth of her first child she had always been ailing. The family history was good. On inspection the abdomen was seen to be of a peculiar shape and elongated in a transverse direction, and on palpation the fœtal head was found occupying the left iliac fossa, whilst the body of the child lay almost transversely across the uterus. Per vaginam I found a non-fluctuating, uniformly hard mass lying just within the vulva. This mass occupied the whole cavity of the pelvis, and it was only with difficulty that the finger could be passed between it and the symphysis pubis. The posterior vaginal wall could be traced from the perineum up, in front of the mass. Per rectum the tumour was felt lying behind the rectum and firmly adherent to the sacrum. On April 24th, as labour pains had commenced in the evening, Dr. Ainsley was called in consultation, and on examining per vaginam under chloroform the os was found to be dilated to about the size of half-a-crown. Cæsarean section was determined upon, and the patient was advised to go into the Hartlepools Hospital. She was admitted to the hospital at 3 A.M. on Thursday morning under Dr. Ainsley's care, when she was found to be in a very unfavourable condition for operation, but as the pains were strong and increasing no time was lost in making preparation. The abdomen was rapidly purified, a drachm and a half of liquid extract of ergot were given by the mouth, and five minims of liquor strychniæ were injected subcutaneously. Chloroform was administered and the abdomen opened by the usual incision, six inches long, from above and to the left of the umbilicus to two inches above the symphysis pubis. The abdomen round the uterus having been packed with sponges, an incision about five inches in length was carefully made into the uterine wall, Dr. Macgregor, the house surgeon, pressing on the flanks and sides of the abdomen and pushing the uterus up against the wound and sponges. A slight gush of blood showed that the placenta was beneath the incision. A finger was pushed between the placenta and the uterine wall, and on it the tissue was divided by scissors to its full extent of five inches. A hand was then passed through the placenta and membranes, a foot seized, and the fœtus rapidly extracted and handed to an assistant for him to deal with. The placenta and membranes were swept out, and the uterus was grasped firmly between two sponges, little blood having been lost. The uterine walls were attenuated and flabby, and this, with the absence of contraction, led us to discard the idea of leaving the uterus *in situ*. Dr. Ainsley therefore applied a whipcord ligature low down, put on a Keith's clamp, and cut off the body three-quarters of an inch above the clamp. As an extra precaution the ovarian and uterine arteries were ligatured. The abdomen was sponged out, the stump placed in the lower angle of the incision, and the peritoneum arranged round it. The abdominal wound was sutured and the stump dressed with iodoform and boracic acid. The patient was put to bed in a collapsed condition. A nutrient enema was given and liquor strychniæ injected subcutaneously. The patient never rallied, however, but died four hours after the operation.

Necropsy.—Permission was only obtained to "look at" the tumour. It was found, as had been diagnosed, growing from, and firmly attached to, the front of the body of the sacrum, between the periosteum and the bone. It was rounded and almost the size of a fœtal head. The space between the tumour and the symphysis pubis would scarcely admit a finger, and this small space contained the rectum and vagina, the bladder being pushed up above the pelvic brim. The tumour consisted of a thick, firm outer portion forming a capsule, within which was contained softer matter of brain-like consistence. A microscopic examination showed the tumour to be a small spindle-celled sarcoma.

Remarks.—There was no possibility of removing the tumour and curing the patient, and next to no chance of her surviving abdominal section; but for the sake of the fœtus, and because of the axiom in midwifery "that no woman should die undelivered," the operation was undertaken. That the patient was delivered of a living child in the natural way fourteen months previously showed extremely rapid growth of the tumour, and it is probably well for the infant, who is strong and healthy, that the mother's condition was not recognised earlier.

Hartlepool

REMARKS ON TWO CASES OF ACUTE BULBAR PARALYSIS.

By J. P. TILDESLEY, M.B., L.R.C.P.LOND., M.R.C.S.ENG.

THE following description of two cases which have come under my notice is worthy of record on account both of the fact that few uncomplicated cases have hitherto been recorded and also of certain instructive symptoms and pathological conditions which were observed. The patients whose cases I describe were seen in private practice, so that it was possible for me to obtain a post-mortem examination in only one instance.

CASE 1.—A man aged thirty-five had been in fairly good health for twelve months previous to the attack. There was no history of syphilis, nor could I find anything prejudicial in the family history. He had had no previous paralytic symptoms, no muscular atrophy, and no signs indicating relationship to amyotrophic lateral sclerosis, during the course of which diseases the lesion may occur. There was no history of rheumatism and there were no signs of endocarditis. In following his trade he was exposed to cold and damp. The attack came on with great suddenness and with no prodromata of any kind, with the exception of slight headache during the day. I saw him an hour after the attack and found paralysis of the lips, tongue, and jaw,

and of the arm and leg of opposite sides. The paralysed arm and leg lay quite helpless; the other limbs were unaffected. He could not articulate. He could swallow, but with great difficulty. He had not lost sensation, and his hearing was unimpaired. The pulse was 130 and irregular, and the temperature was 101·4° F. The severity of the symptoms gradually increased; the temperature rose to 104°; swallowing became so difficult that he could scarcely gulp down his saliva, which frequently dribbled from his mouth. It became necessary to inject beef-tea and peptonised milk into the stomach. The attacks of suffocation became more frequent, and death occurred on the third day. At the necropsy a small left-sided hæmorrhage was found in the lower part of the medulla. The position of the hæmorrhage accounted for the "crossed paralysis" present, the lowest pyramidal fibres being destroyed just before the point of decussation, and also the highest decussated fibres on the same side.

CASE 2.—This case, though rapid in its progress, was not so sudden as the above. The patient was a man thirty-nine years of age, and there had been premonitory symptoms for several days previous to the attack. These consisted of headaches, dulness, and slight thickness of articulation of the labials. Paralysis of the limbs soon supervened, and his speech became more entangled and queer, so that he was unable to be understood; swallowing solid or liquid food became alike impossible, only thick foods and soups could be taken, and within ten days from the onset of the symptoms the tongue was apparently completely paralysed, the patient, in order to swallow, having to throw back his head and hold his hand before his mouth in order to prevent the food being pushed out again by the efforts at deglutition. There was no deafness or tinnitus. Motor paralysis of the soft palate was very marked, and in consequence saliva and food were apt to pass into the air passages during attempts to swallow. There was marked facial diplegia, the face being symmetrical but expressionless. Respiratory troubles supervened, with attacks of asphyxia and cyanosis, and the patient died from exhaustion on the twelfth day.

Remarks. — In the above cases, as contrasted with the much more frequent form of progressive paralysis which is due to "pigmental atrophy of the large cells contained in the nerve nuclei of the medulla, associated with circumambient sclerosis," the points to notice are: (1) the suddenness of the attack; (2) the accompanying paralysis of the limbs, due to the lesions not being limited to the motor nerve nuclei; (3) that hæmorrhage, although infrequent in the medulla, appears to be the most common cause of acute bulbar paralysis; (4) that the lesion is more frequent in the lower half of the medulla, affecting primarily the nuclei of the hypoglossal nerve and thus occasioning the difficulty of articulating the linguals, the hypoglossal being the motor nerve to the extrinsic muscles of the tongue and the depressors of the hyoid bone; (5) that the vagus and spinal accessory nuclei are necessarily implicated, the nucleus of the latter nerve being a continuation downwards of that of the former; thus are explained the bronchial expiration and weakened phonation from want of innervation of the muscle of Reissen and the muscles of the larynx. Vomiting, dysphagia, intermittent pulse, glycosuria, and diabetes may also be met with as results of damage to the centres; (6) the motor paralysis of the palate and uvula is accounted for by the fact that the cells of origin of the motor branch of the fifth nerve descend in the medulla as low as the tubercle of Rolando and are necessarily damaged; and (7) a fact noted by Duchenne which I observed in the latter of the two cases described above—viz., that when the tongue was raised with my fingers the patient could depress it forcibly, thus proving that the "depressors of the tongue were not all paralysed."

Willenhall, Staffs.

A CASE OF DISLOCATION BACKWARDS OF THE PENIS.

BY L. G. FISCHER, M.B., C.M. EDIN.,
SURGEON-CAPTAIN, INDIAN MEDICAL SERVICE; CIVIL SURGEON, MORADABAD, NORTH-WESTERN PROVINCES, INDIA.

I HAVE ventured to publish this case because, as far as I can discover, it is the only one on record, and I have been obliged to give it the above somewhat extraordinary title for lack of a better term to describe it. A Mahomedan child aged five years was brought to hospital in March, 1895, suffering from infiltration of urine, the result of a fall under a cart sustained four days previously. He was seen at this time by my assistant surgeon, Dr. Jwala Pershad. The perineum, scrotum, and lower part of the abdomen were distended with urine, and gangrene was threatening. Cock's operation was at once performed, and the scrotum, &c., were incised in various directions. Little notice at this time was taken of the state of the penis, which appeared to be normal. The case improved; a fistulous opening formed above and to the left of the pubes, from which the urine passed, and the parents of the child, becoming tired of prolonged treatment, as so often happens, removed him from the hospital. On Aug. 21st he was again brought to hospital, when I saw him for the first time. At first sight the penis appeared to be normal, though shrivelled; it allowed the passage of a catheter for a certain distance, but attempts to pass the instrument into the bladder failed. The urine came from a small opening above and to the left of the pubes in a *full jet* towards the left shoulder, and the extraordinary point, which was at once noticed, was that it could be stopped and expelled at will. The patient was placed under chloroform, and, after various attempts had been made to pass the catheter through the penis, and then through the fistulous opening, into the bladder, without success, I introduced a director into the fistula and slit it up to an extent of some two inches and a half. The glans penis then came into view at the lower end of the incision and at the base of the apparent penis, which was seen to consist of the mere outer covering of the organ. A catheter was now passed without difficulty through the glans into the bladder, and Fig. 1, from a photograph taken at the time with the patient on the operating-table, shows very fairly the condition of affairs. I now carefully dissected out the glans and corpora, which had become firmly fixed in their present position, drew them well forward, and, slitting up the "skin" penis along the dorsum, and paring the end of the prepuce, brought it together round the corpora and fixed it in position with horsehair stitches. The fistulous opening and incision were then closed accurately with horsehair stitches, and dry dressings were applied. Healing went on uninterruptedly, with the exception of slight suppuration in the upper wound, and urine was passed naturally from the penis on the day after the operation. On Sept. 1st, when the wound was nearly healed, the parents were permitted to take the child home. On Sept. 5th they brought him again to hospital, when Fig. 2 was taken, which shows clearly the result of the operation—viz., a perfectly useful organ. There can be no doubt that the penis must have been in some way severely wrenched at the time of the fall, and either the skin and prepuce were caught by the cart under which the boy fell and pulled violently forwards, or the corpora and glans were in some manner violently torn back out of their covering. The result, of course, was extravasation of urine into the surrounding tissues, treated successfully in the first instance by Dr. Jwala Pershad, who may be pardoned for not discovering the real nature of so extraordinary an accident at the time.

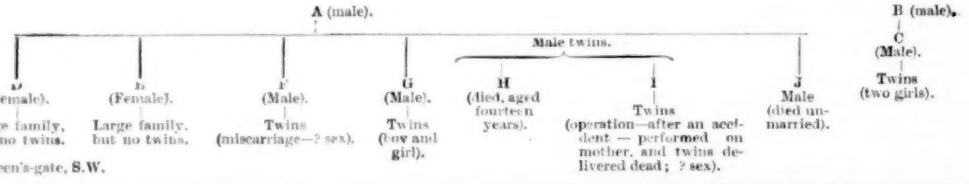
Moradabad.

THE INFLUENCE OF INHERITANCE ON THE TENDENCY TO HAVE TWINS.

BY THOMAS WAKLEY, JUN., L.R.C.P. LOND.

THE statistics with reference to the birth of twins, published by Dr. Cory under the above heading in THE LANCET of Nov. 2nd, lead me to think that a rather remarkable history of twin births which has recently come to my knowledge is worthy of being placed on record. The accompanying table would seem to afford very strong presumptive evidence of the hereditary influence of the male members of a particular family with regard to the birth of twins. Unfortunately I have not been able to trace back the family history beyond the brothers "A" and "B." It will be noticed that "B" had but one child, a male, whose wife bore twins—two girls. "A," on the contrary, had a fairly large family, the two female members of which, although bearing many children, had no twins; whilst as regards the five males (two of whom were themselves twins) there is a history of twins among the offspring of three of them, the other two having had no opportunity of showing of what they were capable in respect to this peculiar procreative

predisposition. Although I have not been able to ascertain the family histories of the wives, it is obviously very improbable that four women, not related to each other, had also in their respective families a tendency to the development of twins. There is one other point which is, I think, worthy of attention. Dr. Cory says: "When the inheritance comes from the father's side the twins seem to be always of the same sex, so far as the present observations go. This is interesting, for it is generally known that when the twins are joined together they are always of the same sex, and we may, therefore, reasonably suppose that this result is brought about by some abnormal potentiality of the spermatozoa—that is, this form of abnormality comes from the paternal side." It will be seen, however, from the table that, notwithstanding the striking evidence of the inheritance coming from the father's side, "G's" twins were not of the same sex, but a boy and a girl (both of whom, by the way, are living and healthy). I may add that the facts have been communicated to me by "G," of whose intelligence and veracity I have the highest opinion. Knowing that he had twin children, and being interested in the question as to whether the male or the female parent was usually responsible for the abnormality of twin births, I inquired into his family history. It proved to be sufficiently noteworthy, especially in connexion with Dr. Cory's observations, to deserve record.



Queen's-gate, S.W.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

LONDON HOSPITAL.

THREE CASES ILLUSTRATING THE MORE SEVERE COMPLICATIONS OF MIDDLE-EAR DISEASE; REMARKS.

(Under the care of Mr. C. W. MANSELL MOULLIN.)

THE publication of cases such as the following, which show the results of operation for conditions which have only of recent years been quite understood, is of great importance. The few that reach our hospitals enter as emergencies, and the necessary operation is performed as soon as possible; therefore they are not brought under the direct notice of any large number of students. The fact that pyæmia due to ear disease may be cured is hardly grasped as yet by many of those who are called upon to see these cases for the first time in private. Only too often patients are sent for hospital treatment when they are almost past surgical help, being nearly exhausted by repeated rigors, high fever, loss of sleep, &c. Quite lately we saw such a case. The girl had been under daily observation at home for a fortnight, suffering from nearly all the symptoms of a septic thrombus in the lateral sinus. Early operation would have saved her life—it was now unsuccessful. Cases 2 and 3 show the mode of onset of the disease, but in each of them some of the more usual and important symptoms were wanting; there were no swelling or tenderness over the upper part of the neck along the internal jugular vein, no swelling of the glands, and no marked tenderness over the mastoid foramen. There is, however, one symptom to which we draw attention as very rare, and that is the external strabismus in Case 2: its occurrence is worth remembering, as its presence in an obscure case of inflammation of the cerebral meninges is rightly regarded as pointing to tubercle as the cause of the symptoms. The site of the thrombus in Case 3 was unusual, and we refer our readers to Mr. Moullin's remarks on the case.

CASE 1.—A boy fourteen years of age was admitted into the London Hospital on May 18th, 1894, in a semi-comatose condition. For about seven years he had had a discharge from the right ear. There was no history of pain or of earache, but he was almost deaf on that side. Three weeks before admission the right temporal region became swollen and tender; at the same time he began to suffer from severe attacks of pain in the right ear and eye. There was no history of injury. He had been sick and delirious, but was said not to have had any shivering fits. On admission he lay upon his left side with his arms and legs drawn up and his hands protecting his face from the light. He was only partially conscious and seemed to be in great pain, frequently uttering shrill cries. The right temporal region was swollen, œdematous, and excessively tender. The temperature was 102° F. and the pulse and respiration both much hurried. There was no optic neuritis. Two hours after admission the patient was anæsthetised and an incision two inches in length made over the temporal region a little below the temporal ridge. The temporal muscle was sodden and acutely inflamed, a large amount of bloodstained serous fluid escaping from it as soon as it was incised; and the same was the case with regard to the periosteum, which was partially detached from the bone beneath, but no pus was found. The incision was then carried backwards over the ear on to the mastoid process, and a circle of bone was removed with the trephine from over the lateral sinus. As this was found not to be affected, and as there was no evidence of increased intracranial tension or of suppuration between the dura mater and the bone, the circle that had been removed was replaced and the posterior part of the incision carefully sutured. The anterior part was drained and dressed separately. The next day the temperature began to fall, and the boy regained consciousness. Two days afterwards he was almost free from pain and perfectly rational, and the temperature was normal. The posterior part of the wound had healed, but there was still an offensive discharge from the ear in spite of frequent syringing. A fortnight later the squamous portion of the temporal bone, where the periosteum had been incised, was still bare, and there was a small collection of pus in the temporal fossa, causing a rise of temperature for a day or two. At the end of the month the bone was completely covered in; the wound had healed except a small button of granulations, and the boy was discharged.

CASE 2.—A young man nineteen years of age was admitted into the London Hospital on Sept. 19th, 1895, with pyæmia consecutive to an attack of acute otitis media. There had never been chronic otorrhœa. His illness had commenced suddenly sixteen days before with violent pain in the right ear and head. There was no facial paralysis, no swelling or tenderness over the mastoid, and no pain on percussing the bones of the head. The membrana tympani had been recently perforated, and on syringing the meatus a good deal of stringy, bloodstained pus was washed out. The pupils were normal; there was no optic neuritis. The temperature on admission was 104°F., and there was a history of several rigors having occurred already. The next two or three days the temperature remained exceedingly irregular, rising on two occasions to 106°. There was no headache or drowsiness, but a certain amount of stiffness was complained of in the muscles at the back of the neck. Then paralysis of the external rectus of the opposite eye suddenly made its appearance. The left shoulder, too, became painful and seemed to be slightly swollen. As the pyæmic symptoms were becoming more and more marked, in spite of the free discharge from the ear, the patient was anæsthetised and a circular disc of bone removed with the trephine from over the lateral sinus. On

exploring this it was found to be plugged with clot. There was no pus or sign of inflammation on the outer surface of the dura mater. The bone on either side of the trephine opening was cut away with Hoffmann's forceps, the sinus laid open, and the softened clot cleared out until the blood flowed freely. The jugular vein was then exposed in the neck and tied; it was not thrombosed. The same evening the patient had a rigor, the temperature rising to 105·2°, and the next morning the shoulder was much more swollen. Two days afterwards two rigors occurred, and then for the next four days one daily, gradually diminishing in severity. The last sudden rise of temperature (without shivering) was on the fourteenth day after operation. In spite of the rigors, however, the patient's appearance began to improve at once; the pulse became stronger and slower, he slept better, and the wounds healed well. The swelling of the left shoulder disappeared, and at the time of his discharge, five weeks later, the left external rectus had almost regained its power.

CASE 3.—A man thirty-one years of age was admitted into the London Hospital on June 5th, 1895. There was a history of otitis media with discharge from the right external meatus and partial deafness for some years. A week before admission he had received a blow upon the ear. This was followed by swelling over the mastoid, intense pain shooting into the temporal region, cessation of the discharge, high fever, and general drowsiness. There was no paralysis; the pupils were normal, and there was no optic neuritis. A rigor occurred the day after admission; it was uncertain whether there had been one before. The ear was syringed out, and the next day, as the symptoms did not subside and the drowsiness was deepening into partial coma, an incision was made over the mastoid process, and the mastoid antrum and cells thoroughly cleared out. A small quantity of pus was found under the periosteum and in the bone, but none on the inner surface under the dura mater. The lateral sinus was laid bare a little further back, through a separate trephine opening, and incised freely. There was no evidence of thrombosis, so the wound was plugged with iodoform gauze to stop the bleeding. The jugular vein was also exposed in the neck, but appeared to be perfectly free. The temperature, which was 103·2° F. at the time of the operation, fell the same night, but the relief was of very short duration. A rigor occurred the next day and at frequent intervals afterwards. The patient's condition rapidly went from bad to worse. Pleurisy and pericarditis set in, and death ensued eight days after admission. At the post-mortem examination there was abundant evidence of pyæmia. The emboli had started from the lateral sinus, which was filled with softened and partially decolourised clot beyond the spot where it had been opened, nearer to the middle line. As the lateral sinus on the right side was plugged with gauze the emboli must have been detached at the torcular and carried down the opposite jugular vein. The clot had, in all probability, been present at the time of the operation, and the blood which flowed freely when the sinus was opened had regurgitated from the jugular vein and the smaller sinuses.

Remarks by Mr. MANSELL MOULLIN.—These cases are good examples of the results that follow neglected otitis media, and form a striking illustration of the value of the treatment described by Ballance.[1] In the first case the infection spread forwards; there was acute inflammation of the temporal muscle and of the squamous portion of the temporal bone, limited, fortunately, to the external surface. The cerebral symptoms were very suggestive of intra-cranial suppuration; but as they subsided as soon as the pericranium was incised and the bone trephined they were probably caused by increased tension and hyperæmia, like those that occur in diffuse cellulitis of the scalp. It is noteworthy that the nutrition of the circle of bone removed with the trephine was not in any way impaired. It had united firmly in its place some time before the boy was discharged. In the second case the pyæmic symptoms, as in several cases previously recorded, were already marked; but apart from the knowledge of what must have been going on in the ear, the only evidence of local thrombosis was the stiffness in the muscles at the back of the neck, and even this was only complained of after inquiry. There was no tenderness, œdema, or swelling over the mastoid. The infection must have spread directly to the sinus, along the veins, without implicating the bone or the extra-dural lymphatic spaces. The paralysis of the external rectus of the opposite eye, which developed one day suddenly and painlessly, may have been due to some secondary pyæmic affection or to direct extension of inflammation along the dura mater. There was no evidence one way or the other. In the third case, which unhappily terminated fatally, there can be little doubt but that the septic infection spread between the dura mater and the bone until it involved the wall of the lateral sinus and led to thrombosis. The actual path taken could not, however, be made out. It is clear that it did not involve the nearest part of the sinus, for this was laid open and was perfectly free. In some way it must have missed this and reached the wall beyond; for the part that extended towards the torcular was filled with offensive, softened débris. Had the operation been carried further and a much larger portion of bone removed, it is possible that the result would have been different. Then the condition of the sinus could hardly have escaped observation; but there was no indication in the symptoms that pointed to this.

[1] THE LANCET, May 17th and 24th, 1890.

WESTMINSTER HOSPITAL.

SECONDARY SUTURE OF THE PATELLA, WITH RESECTION OF THE QUADRICEPS EXTENSOR TENDON.

(Under the care of Mr. WALTER G. SPENCER.)

THIS case serves to emphasise the importance of suturing the patella in suitable cases as soon after the accident as possible and not leaving it until the extensor muscles are shortened and contracted, and the separated upper fragment adherent. The difficulties of secondary suture are often considerable and the contraction of the extensor tendon very difficult to overcome. In similar cases where the upper fragment has not been adherent, this shortening of the muscles has been remedied before operation by tenotomy, or by gradual extension after the fixation of a wire to the upper fragment. The exact method of division of the quadriceps extensor when the operation is completed at one sitting varies somewhat; the one adopted by Mr. Spencer was very successful.

A soldier was thrown at football and injured his knee. He was treated in bed for a month, lotions being applied, and six weeks after the accident was discharged from the army, his limb being useless. Seven months after the accident he came under Mr. Spencer's care. The upper fragment of the patella was firmly fixed to the femur between five and six inches above the lower fragment, the space between being filled with softish masses. The quadriceps extensor muscle was much wasted, as were also to a less extent all the other muscles. The most striking feature was the complete want of power in the whole lower limb. He could only swing it by the action of the psoas and iliacus. The quadriceps extensor had been put out of action and the antagonistic flexors were equally powerless as in complete wrist-drop, so that the knee-joint was rendered loose and no weight could be put on the limb without it bending. After the application of an elastic band above, a rectangular flap was turned *downwards* and the wound further enlarged by a vertical incision upwards from the outer and upper angle in order to reach the upper fragment. A brownish-yellow fatty mass of organised blood clot filled the joint and had to be removed first of all as in arthrectomy. No connexion between the fractured ends even of a membranous nature was met with. The fractured surfaces were refreshed, and the upper fragment was separated from its connexion with the femur. But no approximation of the fragments could be obtained even when the thigh had been flexed to a right angle with the trunk with the knee fully extended. The quadriceps extensor tendon was, therefore, resected as follows. The aponeurosis of the tensor fasciæ femoris and that of the external vastus were divided, muscle fibres only being left; the rectus tendon was advanced by dividing it obliquely upwards and backwards, so that elongation was obtained without any actual gap; finally, the thin aponeurosis of the internal vastus had to be cut through. Two strong pieces of silver wire having been looped round the two fragments antero-posteriorly, as in Mr. Barker's plan for primary suture, and with the use of considerable force, the fragments were brought well together. The remaining muscular portion of the quadriceps extensor stretched sufficiently as the limb was held flexed to a right angle with the trunk. It was only after some days that gradual extension at the hip was allowed.

The elastic band was not removed until after the application of the bandage. Healing took place with sound bony union. There was some oozing of blood, occasioned, no doubt, by the removal of the masses of organised blood clot, and the edge of the flap at its upper and inner angle sloughed a little from want of sufficient blood. The faradaic current and massage were used for the wasted muscles.

Remarks by Mr. SPENCER.—Eight months after the accident the man had a strong leg free from all pain. He is at work and can go upstairs easily. He can move his knee-joint a little, but I have not yet encouraged him to do so, for the quadriceps extensor is still shrunken. Although, therefore, this case is thoroughly satisfactory as one of secondary suture, yet it falls short of what might have been obtained by the very much less severe operation of primary suture.

Medical Societies.

PATHOLOGICAL SOCIETY OF LONDON.

Cystic Accessory Thyroid.—Classification of Sarcomatous Tumours of the Bladder.—Macrodactyly due to Diffuse Lipoma.—Acute Tuberculosis of Spleen.—Hydronephrosis from Malignant Disease of Ureter.—Card Specimen.

AN ordinary meeting of this society took place on Nov. 19th, the President, Mr. BUTLIN, being in the chair.

Mr. EDMUNDS described a specimen of Cystic Accessory Thyroid. The tumour was of a globular shape between 4 and 5 cm. in diameter. It consisted of one large cyst; in the cyst wall on one side was a solid substance about the size of an almond. The cyst contained a pale-brown glairy fluid. Into the cavity of the cyst there projected two vegetations, the smaller of which was removed for examination. Microscopic examination of the solid substance showed it to resemble thyroid tissue; it consisted mainly of vesicles, some of which contained colloid secretion; it differed, however, from normal thyroid in (1) the existence between the vesicles of a considerable amount of lymphoid tissue consisting of small deeply-staining cells embedded in a fibrillar network containing bloodvessels, and (2) in the majority of the vesicles containing no colloid, but being wholly occupied by large cells formed by the multiplication of the secreting cells lining the vesicles. Examination of the vegetation showed it to consist internally of a coarse fibrous tissue, externally to that of a layer of fibrous tissue and again external, and constituting the lining of the cyst of a layer consisting of large thyroid secreting cells, among which was some colloid secretion. The tumour was removed during life from below the angle of the jaw and was not connected with the thyroid body, which seemed normal. The patient was a man aged twenty-eight who had noticed the growth some months.—Mr. BERRY remarked that most of the cases which had been described under this heading could be divided into one of three classes. 1. True masses of thyroid tissue distinct from the main gland; these were extremely rare. 2. Tumours connected with the main gland more or less definitely by pedicles or prolongations of capsule; these, as a rule, lay either above the gland in the line of the lingual duct or at the upper or lower end of the lateral lobe; they were frequently found post mortem. 3. Tumours originating in the normal gland, which, as they grew, stretched the capsule and became separated from the gland. He showed the photograph of a tumour which was situated near the angle of the jaw, and at the operation for its removal the thyroid gland was not distinctly seen. A post-mortem examination was performed on the same case shortly afterwards, and it was then found that the tumour had been directly continuous with the upper part of the lateral lobe of the thyroid gland.—Mr. TARGETT said there was one large specimen in the museum of the Royal College of Surgeons of England where the tumour, which was as big as a lemon, pressed on the bronchus. The tumour in parts was dense and contained calcareous matter and cysts.—Mr. BARKER asked if there was any difference in the microscopical characters of the three varieties Mr. Berry had described.—Mr. BERRY said that practically the structure was the same in all.—The PRESIDENT added that often at an operation no obvious connexion was seen between the tumour and the thyroid gland, and surgeons would not as a rule feel inclined to search for such connexion.—Mr. EDMUNDS briefly replied.

Mr. TARGETT read a paper on the Classification of Sarcomatous Tumours connected with the Bladder, and illustrated his remarks by numerous specimens, microscopic sections, and lantern plates. He said that during the past few years the subject of sarcomata of the bladder had been ably dealt with by Messrs. Southam, Fenwick, and Barling. The classification of the vesical tumours proposed by the last-mentioned writer was compared with that given by the text-books of surgery and pathology in present use. Exception was taken to the use of the terms mucous and fibrous polypus in respect of bladder growths, and many preparations were shown illustrating the chief anatomical and histological differences in the polypoid formations of the bladder. It was proposed to adopt in the main a clinical classification of the growths variously styled fibro-myxoma, myxo-sarcoma, myo-sarcoma, &c., grouping them all under the head of sarcomata, and then arranging them as those belonging to childhood and those belonging to middle age onwards. These two groups were then subdivided by anatomical considerations as to the primary seat of the disease, and examples of each subdivision were exhibited and described. In conclusion the malignancy of the growths occurring in childhood was discussed from a clinical and pathological standpoint.—Mr. HURRY FENWICK claimed to have pointed out that the so-called myxomata of children were not really myxomata but sarcomata. They often looked like nasal polypi, and this was due to a gelatinous translucency of their surface caused by the pressure of the growth upon the venous circulation of the bladder. A true myxoma in the adult was to be found in the Leipzig Museum.—Mr. SHATTOCK defended the term "mucous polypus" as a name for some of these bladder growths in children. They resembled precisely the mucous polypus of the nose; there was no invasion of the muscular tissue, no metastases, and Virchow had shown that in some parts they were often distinctly cellular. In the nose the diffuse form was represented by the hypertrophy of the mucosa of the middle turbinated bone.—Mr. D'ARCY POWER held that in discussions upon growths of this kind the whole of the genito-urinary tract should be considered together. The specimen which he had recently shown as affecting the vagina was almost identical with some of the bladder growths exhibited; they agreed also in their polypoid shape, with surface œdema, in the absence of metastasis, and in the rarity of gland infection. He asked whether the chondro-sarcoma of the bladder which had been shown was a primary or a secondary growth.—Dr. SNOW said that the pathological classification of these growths at the present time was one of distinction without difference and might with advantage be much curtailed. A so-called "polypus" might be produced by the mechanical detachment of a small piece of mucous membrane, the submucous tissue of which afterwards underwent thickening. Nearly all the tumours of the bladder tended ultimately to become polypoid, and papilloma was commonly only a stage of early malignant growth.—Mr. TARGETT, in reply, said that in the specimen of chondro-sarcoma the secondary mass noticed was in the glands and only appeared after the primary growth had been long in existence. Some of the myxomata of the bladder were mucoid degenerations of sarcomatous growths.

Mr. D'ARCY POWER showed a case of Macrodactyly due to Diffuse Lipoma. The child was originally under the care of Dr. Hugh Jones of Dolgelly, and the specimen was shown for Mr. Robert Jones of Liverpool. It consisted of the greatly enlarged right thumb and index-finger of a girl aged eighteen months. The thumb was widely abducted and its ungual phalanx was hyper-extended. The forefinger and the hand were deflected to the ulnar side. The nails of the two enlarged digits were normal. The swelling was noticed at birth, and it increased slowly until the hand became useless. The enlargement involved the thenar side of the hand upon its dorsal as well as upon its palmar aspect. The skin over the affected parts was a little redder than upon the sound side, but it was smooth, soft, elastic, and not lobulated. Amputation of the thumb and index-finger was performed by Mr. Robert Jones, and the child now had a useful hand. Subsequent examination showed that the swelling was due to an overgrowth of the normal subcutaneous adipose tissue. The blood-supply was not increased, and there did not seem to be any change in the lymphatics of the part. The adipose tissue had infiltrated the voluntary muscle, and it was more abundant upon the flexor than upon the extensor aspect.—Mr. POWER, in commenting upon the case, said that it was

one of true macrodactyly, and that it agreed with the majority of the cases recorded in the fact that it occurred sporadically in the family, that it was unilateral, and that it did not affect all the digits. It differed in the fact that it was truly congenital, whereas in most cases the enlargement was only noticed some time after birth. He then called attention to the likelihood of assuming that such enlargements were of lymphatic origin, and he urged that they should be treated more actively, for they consisted of a surely if slowly growing form of connective tissue.

Mr. MARRIOTT described a case of Acute Tuberculosis of the Spleen in which splenectomy was followed by recovery. The patient was a woman aged thirty in whom an abdominal tumour had been noticed two years previously. There was neither history nor sign of syphilis, nor were the lymph glands enlarged. The tumour steadily increased in size and caused no pain; latterly, as it enlarged more rapidly and as the diagnosis was doubtful, an exploratory abdominal section was performed, and an enlarged spleen was removed. The patient made a good recovery and was in good health eight months after the operation. The spleen was uniformly enlarged, measuring 8 in. long, 5 in. from side to side, and 3 in. in thickness. The natural outline of the organ was preserved, but the convex aspect of the spleen was studded with coarse, round nodules, closely resembling a hob-nailed liver. On section the spleen pulp was stuffed with yellowish-white, slightly raised deposits. Microscopically these contained numerous grey tubercles, clustered for the most part, thus explaining the nodules above described. There was very little caseation. A chronic vulvar ulcer which had been excised was looked upon as the source of infection, but there was no clinical evidence of any other organ than the spleen being infected.—Dr. COUPLAND remarked on the extraordinary size of the spleen for a case of tuberculosis. He inquired if there was evidence of tubercle elsewhere.—Mr. TARGETT replied in the negative.

Dr. RUNDLE showed a specimen of Hydronephrosis due to Malignant Disease of the Ureter. The patient was a man aged forty-six, who was admitted into the Royal Portsmouth Hospital in April, 1895, with a history of a swelling in the abdomen of a year's duration. This was diagnosed as hydronephrosis connected with malignant disease of the bladder. Post-mortem examination showed that the disease probably started at the vesical end of the right ureter and spread upwards along the ureter, below into the wall of the bladder, and laterally into both vesiculæ seminales. The secreting portion of the kidney, as a result of the obstruction, became first dilated and afterwards destroyed, and the kidney converted into a series of sacs.

Dr. WALSHAM showed, as a card specimen, Meckel's Diverticulum with an attachment to the Mesentery.

OPHTHALMOLOGICAL SOCIETY.

Three Cases of Exophthalmic Goitre with Severe Ocular Lesions.—The Treatment of Detached Retina.

AN ordinary meeting of this society was held on Nov. 14th, Mr. EDWARD NETTLESHIP, President, being in the chair.

Mr. JESSOP read an account of Three Cases of Exophthalmic Goitre with Severe Ocular Lesions. Case 1: A married woman aged forty had extreme proptosis of both eyes; she had never been pregnant and had always menstruated irregularly; there was no enlarged thyroid. The operation of partial tarsorhaphy was performed on both eyes. Four days afterwards swelling of the right conjunctiva developed, followed by crescentic ulcer of the cornea and chemosis of the left eye. Both eyes then ulcerated, and the corneæ necrosed, notwithstanding active treatment. The corneæ were reduced to Descemet's membrane and perforated. At present there were staphyloma of both corneæ and extreme swelling of the conjunctivæ. The patient is still alive, but very weak. Case 2: A woman aged thirty-five, under the care of Mr. Power, with extreme proptosis of both eyes; both corneæ sloughed. The right eye was excised. The patient became insane and died. Case 3: A woman aged twenty-four, under the care of Mr. Vernon, with extreme proptosis; the right eye sloughed and was excised; in the left eye there were recurrent attacks of superficial corneal ulceration. Reference was made to 25 recorded cases, 7 males and 18 females. The results in the 7 males were more severe and included 4 deaths; the ages were between thirty-eight and fifty-six. Of the 18 females 2 died and 10 lost both eyes; the ages were between eighteen and fifty-two. The results of 3 cases of partial tarsorhaphy in women were that 2 lost both eyes and 1 recovered with good vision, though there was superficial corneal ulceration.—Dr. LITTLE said he had never seen any case bad enough to require suture of the lids. The eye had been removed in Mr. Power's case on account of continued pain and discomfort, which he thought might have been due to something behind the eye. The ulceration, he thought, was not necessarily caused by exposure, as it was not an uncommon thing to see no ulceration in eyes which were never closed even in sleep.—Dr. MCKENZIE DAVIDSON described a case under his care in which both corneæ sloughed; the patient became insane, but afterwards recovered. In another case he performed tarsorhaphy, and the corneæ were preserved. In a third case the surface of the cornea was entirely destroyed.—Mr. LANG said he had performed the operation in one case, but the stitches gave way and the cornea perished. The stitches did no harm.—Mr. JOHNSON TAYLOR was of opinion that the suturing should be complete and not partial, and should be carried out as soon as the cornea showed signs of injury.—Mr. LAWFORD recorded one case in which there were great proptosis and ulceration of the cornea. The lids were sutured in the centre instead of at the canthi, and the result was very good. The union of the lids was a great safeguard.—The PRESIDENT recorded five cases of damage to the cornea in Graves' disease. He was in favour of suturing the lids firmly with wire sutures. Bad results followed imperfect attachment. In one case, a man aged fifty-two with extreme proptosis and ulceration of one cornea, a good result followed suturing. All cases were intolerant of lotions or bandaging.—Mr. JESSOP, in reply, asked that all cases might be put on record, as very few had been hitherto reported.

Mr. WRAY read a paper on the Treatment of Detached Retina. The results of treatment in a case in which the distorted vision began in 1885 were demonstrated. The patient was seen for the first time in January, 1893. The left eye had barely perception of light, and the right eye contained a large detached retina involving about half of the fundus. The tension was decidedly raised, but the patient was, and had been, quite free from pain. As the other eye was quite blind from a penetrating wound, and had been so for many years, it was removed in the interest of the good eye. No more was seen of the case until January, 1895. The eye, under ophthalmoscopic examination, was found to contain a very large detachment, considerably larger than on the occasion of the last visit; so large, in fact, that although the media were clear it was almost impossible to obtain a view of the disc. The tension was still markedly raised and the cornea slightly hazy. Vision was reduced to perceiving hand movements at a distance of from four to six inches. The case was subsequently exhibited at the Ophthalmological Society. On April 7th the patient was operated on by tapping the detachment and a quantity of dark-yellowish fluid evacuated. He was then put to bed, atropine was freely used, and the eye firmly bandaged. Daily injections of pilocarpin were ordered, but had to be discontinued on the third day on account of the patient's intolerance of the drug. A week later ophthalmoscopic examination showed there still existed a detachment of very considerable size, though the vision was improved to seeing fingers three or four metres distant. After allowing a few days for the patient to recuperate, a second operation was done, with the result that vision improved to $\frac{6}{24}$ in a good light, and the sight had fluctuated between that and $\frac{6}{36}$ ever since. The retina now appears in perfect apposition, and there exists, as is usual in such cases, a certain amount of choroido-retinal atrophy, with pigmentation at the seat of the original detachment. The fields are much contracted, doubtless from the tension. The case proves that good may result from operative treatment even in very severe cases of several years' duration. Little was to be expected from pilocarpin, and especially in elderly people and those suffering from cardiac disease. As the perfect rest, treatment with atropine and bandage entailed confinement to bed for at least three or four weeks under almost insupportable conditions, and with the prospect of almost inevitable failure, it would seem better to operate at once, especially as the operation is almost free from risk under proper surgical precautions, and most surgeons do eventually operate after the failure of the simple treatment. As regards recent cases speedy reattachment was necessary to prevent loss of function. If the sub-retinal fluid existed in any amount several weeks would be required to obtain absorption and reapposition, whereas anatomical union was desirable, and

probably the absence of this latter explains many relapses. In chronic cases there will be even less tendency to rapid absorption, and therefore it would seem reasonable to tap at once, so that the period of confinement to bed is spent in promoting an actual adhesion of the retina to the choroid. Cases unsuitable for operation are those where the macula is detached, where the vitreous contains numerous bands of contractile tissue, vascular membranes, large hæmorrhages, &c., and where the detachment is almost total, or the tension of the eye as low as −3. A good result has been published in which the operation was done in a recent case with tension −2. Clavelier's experiments proved that currents of five milliampères could be used for a minute without causing anything beyond transient opacity of the vitreous, and one operator had published eleven cases in which he used electrolysis and obtained three ameliorations and two cures. As such currents cause only a transient opacity of the vitreous and leave no ophthalmoscopic changes behind, it is just possible that the beneficial results after electrolysis were due to leakage around the positive pole during the protracted period the needle was *in situ*. Constitutional remedies directed against gout, rheumatism, syphilis, &c., are slow in their action, usually depressing, and after long trial have not yielded results to warrant persistence in their use as therapeutic agents for an emergency, but should undoubtedly be used later.—Mr. DEVEREUX MARSHALL did not think it probable that tapping the detachment would assist the diagnosis by examination of the fluid evacuated in the case of tumour, as this would not be broken up by tapping.—Mr. JESSOP stated that in his experience the detachment returned or became worse after tapping. He had one case in which the retina had become restored to its place after treatment by rest and pilocarpin; considerable pigmentation occurred in the reattached area.—Dr. LITTLE had had two cases in which complete permanent cure was effected, and he had seen no recoveries without.—Mr. SECKER WALKER recommended the injection of normal saline solution into the vitreous after withdrawal of the fluid from the detached area. In one case a temporary glaucoma had ensued, but the retina remained attached five weeks.—Mr. LANG cited two cases of cure under simple treatment by rest. He had tried puncture in various ways without success.—Mr. TWEEDY had operated by every possible method, but had never seen a permanent cure—only some improvement. He doubted the diagnosis in cases of cure. Scleral puncture he considered right. In one case of a myopic patient, vision which had been reduced to perception of hand movements was restored to J. 1 with rest and pilocarpin, and the improvement lasted some time.—The PRESIDENT was able to give the further history of the case; he had seen her seventeen months later, when she was quite well and there was no sign of detachment.—Mr. POWER cited a suggestion that fresh vitreous from a cat or dog should be injected into the vitreous chamber to replace the retina by pressure.—Mr. JOHNSON TAYLOR asked if any member had used elaterium.—Mr. GRIMSDALE had seen Mr. Frost attempt to inject vitreous, but it had been found impossible to make it flow through a syringe.

HARVEIAN SOCIETY OF LONDON.

Spasmodic Asthma.

A MEETING of this society was held on Nov. 7th, the President, Sir JOHN WILLIAMS, Bart., being in the chair.

Dr. GOODHART read a paper on Spasmodic Asthma. Referring to various opinions as to the pathological changes in this condition, he said his own inclined to the hypothesis of muscular spasm; but, dealing with the cause, there could be no doubt that the disease was a purely nervous phenomenon. As proof of this he adduced the suddenness of onset of the attacks, their association as an early incident in diseases which especially affect the nervous system, such as malaria and influenza, and its alternation with trophoneuroses, such as eczema, urticaria, and psoriasis. Of all these points illustrations were given. Dr. Goodhart then pointed out that the subject was unduly complicated by including such conditions as hay fever and the asthma of bronchitis. He thought, however, that paroxysmal sneezing was due to the same form of nervous instability. Allied to both were other neuroses, of which he instanced Raynaud's disease and the gastro-pulmonary fever of childhood. Asthma, he said, was largely a disease of childhood. This was contrary to the general belief. His own experience and Hyde Salter's statistics showed this; 73 cases out of 121 of the author's cases began before maturity. Turning to the treatment of asthma, Dr. Goodhart believed that the most important thing was to direct their measures to cure the underlying nervous condition, remembering always that they had to deal with a paroxysmal neurosis comparable to epilepsy, migraine, and insanity. It belonged to all of these that the more they came the more they stayed, and the essential indication was to prevent and so break the vicious habit. It should be encountered early—in the child—and by measures of two kinds, whether drugs or other—the one directed to changing the environment, the other to increasing the resistance of the subject. In later life the common practice is to relieve the paroxysm by the inhalation of fumes, and this being done on the patient's own responsibility the malady itself is neglected, while he is left in a worse state than before by the use of his temporary remedy, the lung trouble being increased thereby, and often dilatation of the heart could be ascribed to indulgence in "fumes." The rational treatment of asthma should begin, if possible, with the child. The first thing, and a difficult one, is to find and secure a favourable climate—in any event to oppose the system of coddling and in-door cultivation. A bracing open-air life, reasonable care in diet, and healthy recreation gave the best results. Amongst drugs arsenic was extolled. The treatment of the paroxysm must be guided first by the cause which seemed to induce it; thus, if it followed a meal, an emetic might serve. Iodide of potassium, combined with ethereal tincture of lobelia, seemed to be useful when an attack was impending; when actually in progress a subcutaneous injection of morphia might be given, or the patient made to inhale chloroform. Dr. Goodhart then dealt with the treatment of the asthmatic diathesis in adults, and pointed out the measures to which resort might be had in different cases.

Dr. ILLINGWORTH showed the analogy which existed not only between asthma and epilepsy, but also between it and migraine, angina, and flatulent colic, the symptoms in all being fundamentally similar—collapse, with feeble, fluttering pulse, low temperature, and heavy, dull pain. He grouped these together as venous disorders named the "anginal group." The accepted pathology he regarded as wrong. The symptoms point to venous congestion with consequent effusion of carbonic acid gas into the air cells. Hence the short inspiratory efforts, prolonged expiratory ones, and the relief felt on putting the head low down, allowing this heavy gas to flow out. All these disorders are benefited by nitrites, but especially by belladonna in large and frequent doses. The relief from potassium iodide is from its fluidising effect on the stagnating blood. Antifebrin acts well also in the same way. As stimulants the best effects are got from belladonna, ether, and the nitrites, the former and latter also acting as peripheral vascular dilators. Hay asthma he stated to be rapidly curable by inhalations and douches of warm biniodide of mercury solution of the strength of 1 in 1000.

Mr. PARKER YOUNG congratulated the council on having secured Dr. Goodhart to read a paper on so important a subject, and said the number of members present testified that when they were able to hear such a subject discussed a much larger number attended than usual. He came to the meeting to try to learn if there was any fresh remedy or treatment, as he (like many other members) suffered from the complaint, and out of the remedies suggested he had found that the most efficacious were fumes of saltpetre dissolved in blotting-paper and the inhalation of chloroform. He stated his attacks came on from hurrying, and in going up a hill the attacks of dyspnœa were very severe. Formerly he also found that addressing public meetings, excitement, &c., affected the nervous system, the pneumogastric nerve playing an important part, relief coming from vomiting, sleep, or exciting the mucous membrane of the nasal organs to copious secretion. He thought there was much yet to learn in the disease, and his experience of drugs as suggested by various speakers was not as satisfactory as he could wish. They had been tried by his friend sitting on his right, who was a fellow sufferer, with not very beneficial results.

Dr. EDWARD SQUIRE was disposed to question whether asthma is more particularly a disease of the upper strata of society. As to age, he asked whether the preponderance of children might not be partly explained by the fact that asthmatic children are brought to the medical man in the hope that the disease may be cured before they grow up, whilst

the adult asthmatic, despairing of cure and having found some remedy which eases his attack, treats himself with his favourite "fume" or powder. Dr. Squire unhesitatingly expressed his preference for the "fresh air" over the "hot-house" treatment. Undue "coddling" was in his opinion harmful. With regard to localities suitable for asthmatics nothing could be said in general terms; each patient must find out for himself what locality suits him best. Some asthmatics are better in the open country, and some are most free from attacks in the smoky atmosphere of a manufacturing town. A student at University College used, on the onset of an attack, to take a tramcar towards Hampstead, and when a certain distance on the way the attack went off. On the other hand, a child living in the fresher air in the neighbourhood of Hampstead was brought on to the Metropolitan Railway, and in the atmosphere between Baker-street and Gower-street stations the attack passed off. This might be an instance of treatment by "fumes." As to drugs, Dr. Squire had found such satisfactory results from iodide of potassium in large doses (ten grains to twenty grains three times a day) that he generally prescribed this for adults. He had often seen patients who had had frequent attacks before admission keep free from them for the six weeks or more whilst in hospital. The iodide cannot, however, be considered a cure for the disease, as the attacks generally return when the remedy is discontinued. Chloroform inhalation is sometimes useful during an attack, but requires to be used with care. Dr. Squire had seen alarming collapse follow chloroform inhalation during an asthmatic attack. Morphine hypodermically will always give relief. The various "fumes" are undoubtedly useful in many cases. Dr. Squire advocated examination of the nose in asthmatic patients. He had had cases in children where removal of adenoids had cured asthma. He considered the prognosis good in children, but the disease is much more intractable in adults.

Dr. GREVILLE MACDONALD, in remarking on the association of intra-nasal disease with spasmodic asthma, regretted that his experience had perhaps been hardly sufficient to justify his drawing any definite conclusion, and, remembering the views arrived at by some admitted to be authorities, he felt the more diffident in urging the points concerning which he wished to make a few remarks. Of thirty cases of nose disease associated with asthma he had had twenty manifestly relieved by local treatment, while of these twelve might be quoted as tantamount to complete cures. Of the twenty, four were cases of obstruction due to septal deformities, six were of vascular engorgement or hypertrophy of the inferior turbinated bodies, four were of polypus, and four of adenoids, while the remaining two were instances of that curious œdematous swelling over the upper and anterior portion of the triangular cartilage so often associated with paroxysmal sneezing. The remaining ten cases unrelieved were all due to polypus. He believed that the latter condition was more often associated with chronic bronchitis than with simple spasmodic asthma, and must be considered as a concomitant of rather than as responsible for the bronchial symptoms. From these cases he purposely excluded hay asthma, for he regretted to have to confess that he had but seldom found this symptom relieved by intra-nasal operation, although, so far as the more severe symptom—the sneezing—was concerned, he was greatly encouraged by the results of treatment. Dr. MacDonald then gave particulars of three cases of complete relief of severe spasmodic asthma which had been treated by himself, the results of operation being so immediate and so emphatic that there could be no doubt that the *post hoc* was *propter hoc*. He believed that spasmodic asthma, together with paroxysmal sneezing, was more frequently seen in the out-patient departments than ten years ago, and that they could no longer be considered as among the privileges of the upper classes. Possibly the fact was to be explained by the increasing excellence of primary education or on the supposition that the upper classes were more commonly frequenting the hospitals.

EPIDEMIOLOGICAL SOCIETY.

Return Cases of Scarlet Fever.

A MEETING of this society was held on Nov. 15th, Mr. SHIRLEY F. MURPHY, President, being in the chair.

Mr. T. W. THOMPSON, medical inspector of the Local Government Board, read a paper on Return Cases of Scarlet Fever, or those appearing in a family so soon after the return home of a convalescent from the hospital as to be deemed the result of infection from the returned patient. We print this paper in full on pp. 1277–81 of our present issue. Mr. Thompson said that 3 per cent. on the total admissions was a probable average of such cases, and the public assumed negligence on the part of the medical officers and hospital authorities and premature discharge of the patient, while they in their turn were inclined to find an explanation rather in independent sources of infection—as schools, imperfect disinfection by the sanitary authority, or the evasion of the process in the case of clothing. The class of house seemed to have more influence than any other single factor, pointing rather to the surroundings and thoroughness with which home precautions were carried out. Cases occurring after the patient had been quarantined for a fortnight in a pure air were due to the fact that we could not say when each individual ceased to be infective.

Dr. GOODALL considered the inquiry one for medical officers of health, since a large number of return cases from being taken to other hospitals were not recognised as such. Many patients were infectious after desquamation and all visible catarrhs had ceased. He related the case of a child who was admitted from the workhouse owing to a subsequent attack of measles, and after being detained in hospital for six months conveyed infection to the relatives to whom she went on her discharge, with not a garment or toy from her former home. At the same time disinfection, even by the sanitary authorities, was not always satisfactory, people constantly secreted their best clothes, &c., lest they should be spoiled, so that secondary cases, not returns, frequently followed after a week to a month without any communication with the hospital. It must, however, be remembered that we could not disinfect a person as we could a garment; nature only could eliminate the poison in course of time.

Dr. PARKES asked why they did not hear of return cases of diphtheria, a disease in which the bacillus often remained long after convalescence and throat symptoms recurred, and still less of returns in small-pox?

Dr. SWEETING and Dr. PRINGLE upheld the "old clothes" theory and the apathy of the poor, who were terrified by small-pox, in which, too, the effect of re-vaccinations should be considered.

Dr. DOWNES, Dr. PARSONS, Dr. BOND, Dr. BULSTRODE, Dr. G. BUCHANAN, and Dr. SIDNEY DAVIES continued the discussion, calling attention to the influence of school attendance.—Dr. Buchanan would limit the return cases to those occurring within eight days, and insisted on the greater persistence of the scarlatinal poison, though return cases of diphtheria were not unknown. They agreed as to the need for exhaustive investigation of the bacteriology of the skin, throat, and urine, with the view of determining the means and duration of infection.

HUNTERIAN SOCIETY.

Congenital Ataxia.—Exhibition of Cases.

AN ordinary (clinical) meeting of this society was held on Nov. 13th at the London Institution, the President, Mr. C. J. SYMONDS, being in the chair.

Dr. F. J. SMITH read for Mr. MCDONNELL the notes of a case of Congenital Ataxia in a boy six years of age.

Mr. TARGETT showed a boy aged five in whom he had excised one temporo-maxillary articulation for Ankylosis following Otorrhœa.

Dr. J. H. SEQUEIRA showed a case of Nystagmus with Facial Paralysis in a girl aged eleven, present since the age of two.

Dr. ETTLES showed—(1) a case of Horizontal Nystagmus cured by correction of the astigmatism present; (2) a case of Distension of the Left Frontal Sinus in a woman aged fifty-eight; and (3) a case of Hyperexophoria with Divergent Strabismus and without Diplopia.

Dr. F. J. SMITH showed a case of Paroxysmal Hæmoglobinuria with Local Syncope and Asphyxia.

Mr. OPENSHAW showed a girl aged seventeen with patches of Local Asphyxia on Toes and Heels.

Sir HUGH BEEVOR showed two cases of Cervical Herpes followed by severe pain, and a case of Fibroid Phthisis of the Right Lung in a boy four years old.

A case was shown for Dr. GLOVER LYON of Imperfect Development of the Pinna of the Right Ear.

Mr. COTMAN showed a man with peculiar Thickening of

the Left Ankle, arising from traumatism, but with no pain or other sign except the thickening of the tibia and fibula at the joint.

NORTH LONDON MEDICAL AND CHIRURGICAL SOCIETY.

Exhibition of Cases and Specimens.

A MEETING of this society was held in the Great Northern Central Hospital on Nov. 14th, Mr. CHARLES KING being in the chair.

Mr. G. MOWER WHITE showed three cases of Fracture of Bones having points of interest. The first was an ununited fracture of the humerus occurring in a woman forty-seven years of age, in whose history no evidence of syphilis was ascertained. On account of failure to obtain union in the first instance, the ends of the bone were fastened together by means of ivory pegs. After a considerable period of immobilisation union had not resulted, and the portions of ivory in the tissues had become absorbed. The next method of treatment adopted was securing the ends of the bone by short rods of nickel. As bony union still failed to occur, the ends of the fragments were exposed and portions of fresh rabbit's bone were placed within the periosteum. Union still failed to be brought about, and the speaker said that he seemed to have arrived at the end of the justifiable methods of treatment.—Mr. C. KING, Mr. CRESSWELL, and Dr. GALLOWAY discussed the case, and all concurred in the opinion that syphilis might possibly have something to do with this remarkable failure of union.

Mr. WHITE then showed two cases of Fractured Patella, the one treated by means of a back splint and approximation of the fragments by kneecaps and bandaging, and the other treated by means of wiring the fragments. The superiority of the latter method was readily appreciated, both in the character of the result obtained and in the great shortening of the period of convalescence.

Dr. E. C. BEALE brought forward the case of a young girl about twelve years of age who had suffered from repeated attacks of Gastro-enteritis. The stools showed numerous flecks of hæmorrhage, and at the same time the child had suffered from attacks of purpura. At present she was in a period of quiescence, so far as the gastro-enteritis was concerned, but the purpura was still to some extent visible; the skin showed numerous papules on the sites of the original purpuric spots. Dr. Beale felt inclined to ascribe all these symptoms to poisoning by faulty ingesta, and that the enteritis was in this case an inflammation of the mucous follicles, as evidenced by the numerous minute hæmorrhages present throughout the stools.

Dr. JAMES GALLOWAY showed a patient suffering from Chronic Phthisis who had for five years been the subject of a curious variety of Lichen Planus. The eruption, mainly on the extremities, was of the circinate variety, and in many respects resembled some of the later superficial syphilides. This patient had been treated for nearly ten months with guaiacol in the form of the carbonate and also as a solution of the pure product. The tuberculosis had passed into a quiescent condition, and the skin eruption was better than it had been during the last five years.

Cases of Embolism of the Arteria Centralis Retinæ associated with Albuminuric Retinitis, and a case of almost complete Optic Atrophy following a blow on the head were also demonstrated.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.

Adjourned Discussion on Gastric Ulcer.

A MEETING of this society was held on Nov. 15th, Dr. A. SYMONS ECCLES, President, being in the chair.

Mr. KEETLEY said that in cases of perforation not diagnosed early enough it was clear that confusion with colic or "stomach-ache" seldom arose, and that, though peritonitis was recognised, the mistake was made of not at once determining the cause and dealing with it.

Mr. MCADAM ECCLES laid stress on the value of drainage in cases of escape of the gastric contents, and for this purpose he makes a second opening lower down, which he keeps open for twenty-four to thirty-six hours.

Dr. CLIPPINGDALE discussed the etiology of gastric ulcer and assigned a leading place to local constriction in women by corsets and in men by belts.

Mr. SWINFORD EDWARDS raised the question of the value of gastric endoscopy for diagnosis previously to perforation, and narrated a case of a middle-aged man who had a copious discharge of bright-red blood from the rectum. No gastric symptom was present, but at the necropsy perforation of the right gastro-epiploic artery was the only lesion found.

Mr. R. W. LLOYD discussed the dietetic and medicinal treatment, and called attention to the varied localisation of pain in the cases where perforation afterwards occurred.

Dr. ALDERSON thought that local counter-irritation was a valuable adjunct to treatment.

Mr. BIDWELL referred to the operative treatment in non-perforating cases. He mentioned a case where operation had been performed for persistent symptoms, and others where the symptoms were due to adhesions either within or without the stomach in consequence of the cicatrisation of an ulcer. Considering the uncertainty of the diagnosis of perforation, he held that an operation ought to be performed unless the physician can assure himself that the case is not one of gastric ulcer.

Mr. SNAPE asked the opinion of surgeons present as to the advisability of operating in severe cases before perforation.

Mr. BRUCE CLARKE, in reply, said that in cases of hæmorrhage threatening the life of the patient he would follow the ordinary surgical indication and cut down on the bleeding points.

Dr. ABRAHAM called attention to a singular appearance in Dr. Alderson's case—i.e., that the stomach walls appeared microscopically to be infiltrated with cells somewhat resembling those of a pigmented sarcoma.

Dr. LAWRENCE urged the value of albuminate of iron.

Dr. PEARSON thought that some cases of gastric hæmorrhage in girls might be assigned to vicarious menstruation.

The PRESIDENT summed up briefly, and regretted that no speaker had been able to distinctly define the various indications for operation.

LIVERPOOL MEDICAL INSTITUTION.

Is Cancer Curable by Surgical Operation?—Successful case of Chol-cystotomy.

AN ordinary meeting of this society was held on Nov. 14th, the President, Mr. CHAUNCY PUZEY, being in the chair.

Dr. DAVIES—in opening the discussion on Is Cancer curable by Surgical Operation?—said that evidence goes to prove that cancer is something far other than a mere local disease. In fifty-three cases of uterine cancer submitted to the operation of complete hysterectomy there was early recurrence in almost every instance. Numberless authorities advocate and describe partial or complete hysterectomy, but their writings do not contain the facts as to the actual benefit derived from the operation. In his opinion patients with recurrence of the disease suffer more acutely than those in whom it has never been touched. He thought that cancer was most probably a micro-parasitic disease in the blood. In his opinion alimentary cancer was as unsatisfactory as the uterine form, and more reliable details of results were much needed. He also thought that the subsequent and remote results of operation on breast cancer were very bad, notwithstanding that the operation was becoming more and more severe, with clean sweeping of the axilla and even removal of the arm. Statistics, immediate and remote, would be a great help. There was no evidence that cases of non-recurrence were also examples of early operation. Patients ordinarily live for two or three years whether treated by surgery or left alone. When cases live for ten or twenty years after operation the question to determine was whether the case was ever one of cancer at all. Dr. Davies, in concluding, advocated the serial and methodic investigation of a large number of cases, extending over many years, such investigation to be duly audited by a competent committee.

Mr. PAUL said that he had no intention of advocating either side of the debate, but hoped to state his views impartially. He thought there was no such diversity *in practice*, as had been suggested by Dr. Davies, amongst the leaders in surgery. Having given the facts upon which his views were based, he expressed the opinion that cancer was local in origin, but could only occur in tissues favourably

predisposed to its growth, and that it could be cured in the same sense that a tuberculous joint could be cured by excision. He then proceeded to give the results of surgical treatment in cancer of the alimentary tract. The best successes quoted were in cancer of the lip, gums, cheek, rectum, and anus, but he believed the colon and pylorus would yield equally good results in time. Finally, he considered that surgical success depended upon—(1) early recognition, (2) thorough extirpation, (3) inherent favourable tendencies in the tumour, and (4) judicious constitutional after-treatment.

Mr. BANKS dwelt more particularly on cancer of the breast. He said that he could well remember the time when cancer was held to be an absolutely constitutional disease, but later many veered round to the opposite opinion and alleged that it was purely a local malady. He believed in a cancerous diathesis, but thought that some local irritation was necessary to start the disease; if, however, the portion of the economy so affected could be clean scooped out, "like the bad bit out of an apple," there was no absolute reason why the disease should not be eradicated. If once it is admitted that cancer is a purely diathetical disease, the surgeon may give up all attempts at its removal, for, whatever is done, it will return locally or at a distance; on the other hand, if he believes too implicitly in a mere local focus which spreads and affects the system, he will often be led away into rash and futile operations which can never, in the nature of things, succeed and which do serious harm by prejudicing certain operations in the minds of the public, both medical and lay. Mr. Banks confessed that the only remedy at present, if one was employed at all, was the knife, and that admittedly a very poor one. When a student he was taught that if there was secondary infiltration of the glands this was a bar to all operative procedure, but about eighteen years ago he had begun to practise a much more free local removal of the breast, accompanied by a clearing out of the axilla. He believed that if this could be thoroughly done it was a perfectly justifiable operation. He thought that if they could only get people to come early enough with their breast tumours and have them removed they might save one out of four from further invasion. While, therefore, he deprecated reckless and useless operation, he would regard anyone who should refuse absolutely to remove breast cancers on any consideration as a person perfectly devoid of reason and common sense.

Mr. W. S. CRAWFORD advocated the treatment of certain cases of mammary cancer by surgical means. He gave particulars of four cases, microscopical sections of which had been shown. In one the patient died five years after he operated and without any return of the cancer; the second case was now living, three and a half years after operation, with no apparent return; the third case died three and a half years after operation from other causes; and in the fourth a different form of cancer attacked the second breast three years after the first one was removed.

Dr. IMLACH said that, according to some modern "localists," out of 500 operations for cancer 100 remained free from recurrence, while, according to Sir James Paget, perhaps only one individual would remain free. He was surprised at the meagre information which was supplied by the supporters of hysterectomy for cancer. Surgeons generally complained that patients with cancer are not sent to them sufficiently early, but he believed, with Dr. Davies, that cases of non-recurrence were very seldom examples of early operation. If any hospital committee, disappointed with the results of cancer surgery, desired an inquiry into results they should carry it out for themselves, with the aid of medical assessors.

Dr. ALEXANDER admitted that the results of operation for cancer were not satisfactory, but there could be no doubt that surgery was sometimes a "cure" for the disease, and he cited some cases from his practice to prove this point. Apart from "cures," surgery gave distinct relief, especially in cancer of the tongue and rectum, where recurrences took place outside the alimentary tract and killed the patient by exhaustion without the terrible agonies experienced by those who died unrelieved by operation.

Mr. BRIGGS, Mr. J. D. CRAWFORD, Mr. ROBERT JONES, Dr. WALLACE, Dr. CARTER, Dr. RAWDON, and Mr. RUSHTON PARKER also took part in the debate.

Mr. CLEGG showed a female patient aged twenty-six years from whom he had successfully removed several Stones from the Gall-bladder.—Dr. RAWDON and Dr. O'HAGAN made remarks on this case.

MANCHESTER MEDICAL SOCIETY.

Cervical Pachymeningitis.—Pulsating Orbital Swelling.—Abscess of Spleen.—Ipecacuanha Alkaloids.

A MEETING of this society was held on Nov. 6th, the President, Mr. F. A. SOUTHAM, being in the chair.

Dr. LEECH showed a case of Cervical Pachymeningitis. The patient came under his care nineteen years ago, being then fifteen. He was suffering from loss of power over both arms and the left leg. Prior to the paralysis he had suffered from an abscess at the back of the neck, and from a sinus it left a piece of bone of considerable size had been discharged. Soon after admission into the Infirmary power was entirely lost in the arms and legs, the muscles were rigid, the deep reflexes much exaggerated, and tremors were easily produced. The muscles of the upper extremity were wasted, and there was characteristic deformity of the hands. He had incontinence of urine, and some anæsthesia. The boy remained completely paralysed for many months, yet he eventually recovered. He could not stand for two years, and three years elapsed before he could walk. For sixteen years he has remained well and able to work. The right hand is a little deformed, and the reflexes are unduly marked—otherwise he is in good health.

Mr. JONES showed a case in which both Common Carotid Arteries had been tied for a Pulsating Swelling in the Right Orbit. The patient, a woman aged twenty-four, was confined in January, 1891, after a tedious labour of thirty-six hours. Immediately after the birth of the child the patient noticed a peculiar noise in the head, which she compared to a loud knock at the door. This sensation was most noticeable on the right side of the head, and it was not attended with any pain. Fourteen days later both eyes became swollen, but the condition did not persist in the left eye. A little later the right eye began to protrude, and after two months the protrusion was most noticeable. She was under treatment for a few weeks, which consisted of rest in bed and intermittent pressure on the right carotid artery, no benefit being derived. She was admitted into the infirmary in December, 1891. The symptoms usually associated with orbital aneurysm were present in a more or less marked degree. Ligature of the right common carotid artery was practised in August, 1892, after a further trial of digital compression of the artery had been resorted to. The patient made a good recovery, and there was a marked improvement in her condition for a time until a violent attack of coughing, which was attended with much straining. Pulsation and the other symptoms returned in the orbital swelling. Her condition remained stationary for many months, when she received an accidental blow from a child's elbow, and an aggravation of the symptoms followed. She was readmitted last January, and as it was found that the pulsation in the swelling could be controlled by pressure on the left common carotid artery this vessel was secured. The benefit accruing from this operation was of a very temporary character. Her condition now is very much what it was when she first came under observation, and the question was discussed whether injection of coagulants into the dilated pulsating veins would not be a justifiable proceeding. If the patient gives her consent she will be again admitted for further treatment.

Mr. JOSEPH COLLIER mentioned a case of Abscess of the Spleen in a woman aged forty-five years, married, with no history of injury, who had never lived abroad, and who was admitted into Crumpsall Hospital with signs of left pleurisy. Later there existed a high temperature, much pain in the left side, and afterwards bulging in the left hypochondrium, which increased, was fluctuant, and slightly pulsating. Abscess of spleen was diagnosed, with hæmorrhage from the splenic substance into its cavity. The patient was in a very low condition; the abscess was opened, and over a pint of blood-stained pus, blood-clot, and broken-down spleen substance was removed; the hæmorrhage from the remaining portion of the spleen was easily controlled by pressure with a sponge towards the hilum; the remainder of the spleen was scraped out with a lithotomy scoop. The cavity was packed with iodoform gauze. There was no further bleeding, but the patient died from collapse in twenty-five hours. At the necropsy no peritonitis was found, but the peritoneum was pushed down by the abscess; there had been no hæmorrhage into the large abscess cavity. Left basal pleurisy was

present, with some clear fluid in the cavity. No other abscesses were found, nor was there any endocarditis, any evidence of pyæmia, tuberculosis, or syphilis, or any pyelophlebitis. The abscess was apparently idiopathic.

Dr. R. B. WILD read a paper on the Pharmacology of the Ipecacuanha Alkaloids (a full account of which is given on pp. 1274–77 of our present issue), in which were detailed the results of a number of experiments upon emetine and cephæline, the two alkaloids recently described by Paul and Cownley.

EDINBURGH OBSTETRICAL SOCIETY.

President's Address.—Atresia Vaginæ.—Teratogenesis: an Inquiry into the Causes of Monstrosities.—Election of Office-bearers.

A MEETING of this society was held on Nov. 13th, Dr. A. H. FREELAND BARBOUR, President, being in the chair.

The PRESIDENT in his Valedictory Address reviewed the work of the past session and referred to the loss sustained by the decease of some of the members. Regarding the work of Dr. Thomas Keith, few to-day could realise what it meant to persevere with the operation of ovariotomy when success was doubtful and in face of hostile prejudice until it was established as an operation above criticism. He was a pioneer who dared to go where no one had gone before. He had indomitable spirit, and combined with it a womanly consideration for the well-being of his patients. Dr. Leishman, Dr. Goodall, Dr. T. A. G. Balfour, Dr. D. Wilson, and M. Pasteur were also referred to.

Dr. R. C. BUIST (Dundee) read notes and showed a specimen of a case of Atresia Vaginæ. The patient died at forty-three, and had been operated on in her teens for retained menses, and again later; but she had not been able to work after thirty. She had menstruated regularly, and had suffered from a severe flooding in January of this year. Post mortem the uterus was found to be of normal consistence, seven and a half centimetres long; the cervix was small and opened into a small vagina three and a half centimetres long and of the same width, and funnel-shaped. On passing a probe down the vagina it appeared at the bottom of a deep pit in the urethra; and it was from this that the patient menstruated. The labia were normal, and on separating them a mass of cicatricial tissue could be felt. The tubes and ovaries were normal; below the left ovary a small fish-bone was found embedded.

Dr. J. W. BALLANTYNE commenced a series of papers on Teratogenesis: an Inquiry into the Causes of Monstrosities. Part I.: The Theories of the Past—(1) Supernatural Causes; (2) Physical Causes; and (3) Mental Influence. The subject had been engaging his attention during the last eight years, and he had examined 160 cases of monstrosities. Some of the views held by the ancients regarding their cause had long since been abandoned, and are now to be met with only amongst savage races; others are still accepted by the popular mind; and some have received a degree of justification by clinical and pathological investigations. Modern experimental research in the artificial production of monstrosities has done more than any other method to give a rational explanation for their causes. 1. Supernatural Causes.—Some ancient peoples ascribed monstrous births to the gods they worshipped; other races, who had divided their pantheon into good and evil deities, put the blame sometimes upon the former and sometimes upon the latter; whilst others connected their births with the positions and combinations of the stars and heavenly bodies. In succeeding ages the different deities, Satan, and evil spirits as well as the stars were alleged as the cause of monstrous births. According to some the gods were amusing themselves, or exhibiting their creative powers, or were angry with men, or chastising individuals or countries. The belief soon followed that these births were portents of good or evil fortune. The Chaldean astrologers soon advanced the opinion that such a babe of doubtful sex meant an approaching calamity to the land, whilst one with an imperforate anus proclaimed a famine. Similar beliefs held sway in Europe in the Middle Ages combined with the Satanic origin of such progeny. The mother of such a child strove to show the cause was in the stars, or a death at the stake awaited her and her "Devil's brat." In the earliest ages, on the hypothesis that these infants might be gods themselves or their progeny, it is easy to account for the teratological appearance of nearly all the heathen gods and goddesses. Many are unlike the cases of monstrosity seen now, but probably the artificer was never an eye-witness of the appearance and only received distorted details from those unacquainted with anatomical figures. Yet malformations well known at the present day can be recognised in the two-headed, many-breasted gods of the East—in Ptah of the Egyptians, in the Cyclops of the Greeks, and in the fauns and satyrs of the Romans. According to some Jupiter was amusing himself, and Pliny stated that nature creates monsters to astonish us and amuse herself. This idea is still implied in "freaks of nature" or "sport" in botany. Further on, the birth of a deformed fœtus was a divine warning, and with this was associated the necessity for propitiating the deity, and so the infant was sacrificed. In Europe almost all were immediately killed in the Early and Middle Ages, and the mother was fortunate if she escaped. Lucan relates that Arnus, chief of the Etruscan diviners, ordered the slaughter and burning of all monstrous infants at the time of the overthrow of the Roman Republic. The idea that monstrous births predicted disaster held its ground in Europe till the close of the seventeenth century. At other times they were regarded as a punishment of sins committed. In early French history Robert II. married his cousin and was excommunicated by the Pope. His wife gave birth to a malformed fœtus, evidently with webbed digits. She was divorced and the king took another wife. Another idea was that teratogenic power was specially the possession of an evil spirit. Du Chaillu, in his work on the Vikings, states that every child "which is born so deformed that the mother cannot give strength to it, shall be carried to a beach and buried where neither man nor cattle go—that is, the beach of the Evil One." In the early Christian era such fœtuses were looked upon as the progeny of Satan, and to destroy them was to destroy his family. In the sorcery and witchcraft trials in the Middle Ages "coitus cum diabolo" was always inquired into, and in many cases torture wrung most revolting confessions from the accused. Something of this view was in existence at the time of Luther; and as recently as 1893 a notice appeared in a newspaper concerning the birth of a hirsute and otherwise deformed infant supposed to be the result of incautious remarks about the Evil One made by the mother in her pregnancy. An astrologer of the second century not only stated the astral conditions under which terata were born, but also mentioned the nature of the malformation expected. A Danish astronomer, who was also a medical man, ascribed them to comets, and regarded them as tumours scattered throughout the firmament and precipitated on earth in this form. About the year 1200 a cow gave birth to a calf said to be half human, and the shepherd was accused of an unnatural crime and was condemned to be buried alive. Albert the Great saved him by stating that it was due to a certain constellation. Such beliefs were dispelled by the advancement of scientific knowledge, but traces of these early superstitions are to be found not only amongst savage races, but also in our own land and in the popular mind.

The following office-bearers were elected for the ensuing session:—President, Dr. A. Ballantyne (Dalkeith); Vice-Presidents, Dr. Halliday Croom and Professor A. R. Simpson; Treasurer, Dr. Craig; Secretaries, Dr. J. W. Ballantyne and Dr. F. W. N. Haultain; Librarian, Dr. Milne Murray; Editor of Transactions, Dr. J. W. Ballantyne; Members of Council, Dr. Lucas, Dr. Menzies, Dr. Stewart Stirling, Dr. Keppie Paterson, Dr. A. H. F. Barbour, Dr. James Ritchie, Dr. Andrew Balfour, and Dr. J. Jamieson.

GLASGOW SOUTHERN MEDICAL SOCIETY.

Treatment of Phthisis Pulmonalis.

AT the third meeting of this society, Dr. ALEXANDER RANKIN in the chair, a paper on the Treatment of Phthisis Pulmonalis was read by Dr. EBENEZER DUNCAN, detailing the treatment he had employed in 38 cases of phthisis pulmonalis under his care in the Victoria Infirmary, Glasgow, during the past year. Excluding 2 patients moribund on admission, of the remaining 36, 4 recovered, 9 were greatly improved, 16 improved, 6 remained *in statu quo*, and 1 became worse. The most important therapeutical factors were pure air (air washed and filtered before entering the wards) and an equable temperature. Medicinally, counter-irritation and antipyretics (if necessary) were employed in

the acute stage; later, inhalation frequently of a mixture of creasote, eucalyptol, and pinol in equal proportions. Internally, carbonate of guaiacol and beechwood creasote were exhibited. Beginning with small doses, 60 to 90 gr. of guaiacol were administered four times daily without detriment, and of creasote 25 minims in olive oil. Creasote had also been given as a suppository. Pure guaiacol had no advantage over the carbonate; applied to the skin (20 minims in flannel covered with oiled silk) it brought down the temperature—in one case to 96° F., with symptoms of collapse. Phenol was found in the urine when the maximum dose was reached, without impairing the renal functions. In one case in which there was acute nephritis the blood and albumin disappeared while the patient was taking large doses of the carbonate of guaiacol. There was no gastric disturbance with either drug. When a large cavity existed, intra-laryngeal injections of menthol (15 per cent.) and guaiacol (4 per cent.) in olive oil—the patient lying on the affected side—had been employed with benefit. Cod-liver oil and a generous diet completed the measures.

In replying after the discussion which followed Dr. DUNCAN advocated the erection of a hospital in Glasgow by the municipal authorities for the treatment of tuberculous diseases.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

SECTION OF SURGERY.

Colotomy.

A MEETING of this section was held on Nov. 8th, Sir W. THORNLEY STOKER, President, being in the chair.

Mr. WHEELER read a communication upon Colotomy, recommending it prior to excision of the rectum for cancerous disease in cases where there were much rectal irritation, diarrhœa, pain, and consequent nervous exhaustion. He considered anterior colotomy preferable and safer, although the lumbar operation had its own place in surgery. As the peritoneum not infrequently surrounds the entire bowel, one of the advantages claimed for the lumbar operation cannot always be upheld. He recommended the parietal peritoneum to be sutured to the wound and a needle armed with a suture passed through the mesentery and then carried through the parietal peritoneum on each side—the gut having previously been drawn through the wound; he sutured back the mesentery at the distal side of the gut to the parietal peritoneum sufficiently to prevent procidentia, which plan was much preferable to drawing the intestine in quantity outside the abdomen and ultimately cutting it off, a procedure sometimes inadmissible; when there was a short mesentery, in addition to the above he passed a sterilised bougie through the mesentery below the suture and allowed it to rest across the wound external to the abdomen; this helped in the formation of a more perfect spur so essential for the after-comfort of the patient. He deprecated the practice of dividing the gut, suturing the lower end, and then dropping it into the abdomen, enumerating the disadvantages and dangers. He described a transverse colotomy for obstruction at the splenic flexure of the colon which was ascertained by an exploratory incision and believed at the time to be malignant, but the patient is at present alive and well, nearly three years after the operation. He also described a left inguinal colotomy for cancerous prostatic disease causing obstruction; the patient died thirteen months after the operation.

Mr. HENRY GRAY CROLY read a paper on Left Lumbar Colotomy, and stated that he had, during the past twelve years, performed that operation eighteen times. With one exception, the operations were performed for cancer of the rectum, and the cases were unsuited for excision; no death occurred from the operation. Two of the patients (notwithstanding careful antiseptic precautions) were attacked with erysipelatous inflammation and septic or erysipelatous pneumonia, but recovered. In each case great relief was afforded to the sufferers. The patients lived from a few months to over two years; one man worked for nearly two years after the operation as a labourer. All the patients became fat and expressed themselves as grateful for the relief afforded to their sufferings. Mr. Croly said he did not intend to compare the lumbar operation with the now more fashionable inguinal operation, but thought it his duty to place on record brief notes of the cases. He adopts the oblique incision of Bryant, and in his hospital practice marks out the crest of the ilium, last rib and erector spinæ muscles; he has invariably found the colon half an inch behind the centre of the crest. He opens the intestine at once and makes an opening not longer than half an inch, thus preventing the prolapsus which occurred in some of his early cases. On one occasion the gut was collapsed and the kidney presented, but the intestine was soon found; in two cases the distance between the crest of the ilium and the last rib was very short, and consequently the wound was deep. He claimed for lumbar colotomy its extra-peritoneal advantage, and he considered the position of the artificial anus in the loin less unpleasant to the patient than the inguinal.—The PRESIDENT expressed surprise that lumbar colotomy should be advocated at the present time.—Sir WILLIAM STOKES said that the more experience he had of lumbar colotomy the more highly did he think of it, although he did not think ill of the anterior operation. One advantage of the lumbar over the inguinal operation was that, as the patient had to lie on his back for a considerable period after the operation, there was a better chance of fæcal drainage. The anterior operation had, however, the advantage of the greater facility and comfort by which the toilet of the patient could be performed.—Mr. KENDAL FRANKS said that the extended use of excision of the rectum, especially by the trans-sacral method, was gradually turning colotomy out of the field, so that colotomy, he believed, would soon become a very exceptional procedure.

Reviews and Notices of Books.

Lectures on Diseases of the Spinal Cord. By Dr. PIERRE MARIE. Translated by MONTAGU LUBBOCK, M.D., F.R.C.P. Lond. London: The New Sydenham Society. 1895.

THE French school of neurology, which was practically founded by the late M. Charcot, has achieved much, not only through the additions to science that have proceeded from it, but also from the impetus it has given to systematic study of diseases of the nervous system all over the world. This widening of interest in a subject abounding in matter for observation has been in large measure due to the methods and style of presentation of it by Charcot and his pupils, among the most eminent of whom is the author of the work before us. The clinic of La Salpêtrière furnished M. Charcot abundant material for study, and the volumes of his lectures will always remain as among the most exact as well as the most lucid expositions of the various phases of nerve disorders. Dr. Pierre Marie has in these lectures, which the New Sydenham Society has done well to place in its series, followed the lines laid down by his master, and has produced a work which is worthy to rank with those of Charcot. The volume consists of thirty-eight lectures, which cover the ground of diseases of the spinal cord, each topic being treated with a fulness and precision that leave little to be desired. Opening with a lecture devoted to the consideration of the anatomy of the pyramidal tract, the author next proceeds to describe in turn the subjects of secondary degeneration of the pyramidal tract, of descending degeneration consecutive to transverse lesions of the cord, ascending degeneration consecutive to lesions of the nerve-roots, and to transverse lesions of the cord. Two lectures are devoted to the interesting subject of degeneration of the nerves and spinal cord after amputation of a limb, and, after a discussion of the various conflicting views as to the cause of such secondary changes, the author himself suggests that they are of the nature of an ascending neuritis through the absorption of "some morbific agent" at the extremity of the divided nerve. This explanation, he admits, is as hypothetical as any of the others, but thinks that it receives some support in the analogy of sympathetic ophthalmia. The clinical description of the diseases

of the cord begins with spastic paraplegia, and full recognition is made of the writings of the late Dr. Little, which preceded by many years the observations of neurologists. Its congenital character, and its frequent occurrence in children of premature birth, point to the dependence upon some defect in development, and this has been reasonably supposed to be an arrest of growth of the pyramidal tract, often due to injuries inflicted at birth or fœtal inflammation of the meninges or the brain. The author distinguishes between the "true spastic paraplegia" and the "tabetic spasmodic conditions," the former being those due to mere arrested growth, the latter those due to injury and inflammation and associated with mental defects—epilepsy or other sign of cerebral lesion. In spite of the apparent hopelessness of remedying a condition dependent on the non-development of the pyramidal tract, Dr. Marie says that much may be done to excite normal function in those fibres that have formed, and he points to the results achieved by Bourneville at the Bicêtre by gymnastics, massage, &c., carried on with perseverance, as showing that "much improvement may be obtained in cases of spasmodic cerebral pseudo-paralysis, even when complicated by more or less pronounced idiocy." The lectures upon "Insular Sclerosis" recall the memorable picture of this disease given by Charcot in the first volume of his "Leçons." It is treated here in a systematic manner, and the opinion is expressed that this affection really arises from the action of infective agencies. The distribution of the sclerosed patches suggests a vascular origin, and this may be of the nature of embolism, caused by the influence of several infectious diseases. The *pièce de résistance* of the book is undoubtedly to be found in the chapters dealing with the subject of Tabes Dorsalis, which is treated with remarkable detail, and illustrated by a wealth of clinical and pathological facts. The symptomatology of this common yet remarkable affection are described in regular sequence under the heads of Motor, Sensory, Reflex, Trophic, and Visceral. The trophic disorders comprise a very full account of tabetic arthropathy, and an especial description of the "tabetic foot," besides many another lesion of nutrition that keen observation has caused to be added to the list. Lastly, it is instructive to note that Dr. Marie agrees with those who assign to syphilis the chief agency in the causation of tabes—not, be it noted, as affecting the interstitial substance, but as a direct intoxication of nerve cells, for he says, "It is only in this way that we can explain the fact that cells, as distant from each other as are those of the spinal and peripheral ganglia, are simultaneously affected by the same morbid process and in the same special elective manner." The subjects of Friedreich's disease, combined lateral and posterior sclerosis (ataxic paraplegia), spinal paralysis (infantile and adult), infantile paralysis, and amyotrophic lateral sclerosis are also dealt with. The translation of the work has been admirably rendered by Dr. Montagu Lubbock, and an index is added which forms in itself an excellent digest of the contents of the book. It is to be regretted that many of the figures in the text—and their whole number is commendably large—should have apparently suffered so much in reproduction.

Dictionary of National Biography. Edited by SIDNEY LEE. Vol. XLIV.: Paston—Percy. London: Smith, Elder, and Co. 1895.

SIR ROBERT PEEL, the statesman, is probably the most notable figure in this well-stored volume. An estimate of his eminent public services rendered during a political career of nearly forty years would be out of place in the columns of a medical journal; it may be sufficient to observe that he was born in Lancashire in 1783, entered the House of Commons in 1809, was Chief Secretary for Ireland from July, 1812, to August, 1818, and Prime Minister from August, 1841, to June, 1846. He died in London in July, 1850, from injuries received by falling from his horse a few days previously. His father, Sir Robert Peel, the first baronet, was a partner in a calico-printing firm in Blackburn. He represented Tamworth in the House of Commons, and in 1802 carried the Act which was the forerunner of all factory legislation—"an Act for the preservation of the health and morals of apprentices and others employed in cotton and other mills, and cotton and other factories."

No fewer than twenty-three medical men are included among the subjects of biography, several of them being honoured with titular distinctions and positions of dignity in their profession. Thomas Pellett was born in Sussex about 1671, graduated as M.D. at Cambridge in 1705, and resided in Henrietta-street, Covent-garden. He was elected a Fellow of the College of Physicians of London in 1716, was Censor in 1717, 1720, and 1727, and President from 1735 to 1739. The Harveian Oration delivered by him in 1719 is remarkable as the only published one which is partly in verse. He died in 1744. Sir Lucas Pepys was born in London in 1742, studied medicine at Edinburgh, obtained from Oxford University a pre-graduation licence to practise, and became physician to the Middlesex Hospital in 1769. He graduated as M.D. at Oxford in 1774, was elected a Fellow of the College of Physicians of London in 1775, was Censor in 1777 and three subsequent years, Treasurer from 1788 to 1798, and President from 1804 to 1810. In 1777 he was appointed Physician Extraordinary to King George III. and attended him during his mental disorders of 1788-89 and 1804, spending two days a week at Kew with the King, from four in the afternoon till eleven the next morning. He had a large practice and was an active supporter of the National Vaccine Institution, but his only published work was the Latin preface to the London Pharmacopœia of 1809. He was created a baronet in 1784 and died in 1830. Sir Christopher Pegge was born in London in 1765, graduated as M.D. at Oxford in 1792, was knighted in 1799, and in 1801 was appointed Regius Professor of Physic in Oxford. He was elected a Fellow of the College of Physicians of London in 1796, delivered the Harveian Oration in 1805, and became a Censor in 1817. He died in 1822. Sir Isaac Pennington was born in Lancashire in 1745, graduated as M.D. at Cambridge in 1777, and in 1793 was appointed Regius Professor of Physic there. He was elected a Fellow of the College of Physicians of London in 1779 and delivered the Harveian Oration in 1783. He was knighted in 1796 and died in 1817, leaving munificent bequests to St. John's College, Cambridge. Robert Perceval was born in Dublin in 1756, studied medicine in Edinburgh, and graduated there as M.D. in 1780. In 1785 he was appointed the first Professor of Chemistry in Dublin University and retained the office till 1805. In 1785 he took an active part in founding the Royal Irish Academy and was for a long time its secretary. In 1793 he received the degree of M.D. from Dublin University. In 1799 a committee of the Irish House of Lords was appointed to inquire into the application of the funds left by Sir Patrick Dun, and Perceval in the course of his evidence declared that he did not think that the King and Queen's College of Physicians, of which body he was a Fellow, had faithfully discharged its trust in this matter. On the report of this committee the "School of Physic Act" was passed in 1800, and Sir Patrick Dun's Hospital, built from the surplus funds of Dun's bequest, was opened in 1808. Perceval was elected President of the King and Queen's College of Physicians in 1799, but vacated his Presidency and Fellowship under a subsequent regulation, promoted by himself, according to which no University or King's professor could remain a Fellow of the College. He afterwards became an active member of the "Prison Discipline Society" and was called "the Irish

Howard"; he published several unimportant works, but was a successful physician. He died in 1839. Granville Sharp Pattison, born in Glasgow in 1791, received the diploma of the Faculty of Physicians and Surgeons of that city in 1813, and in 1820 was appointed to the chair of Anatomy, Physiology, and Surgery in the University of Maryland in Baltimore. He returned to England in 1827 and for a short time was Professor of Anatomy at the University of London (now University College). This post he relinquished in 1831 and in the same year became Professor of Anatomy in the Jeafferson Medical College, Philadelphia, where he received the degree of M.D. He was appointed Professor of Anatomy in the University of New York in 1840, and continued to hold office till his death in 1851. He edited various American medical periodicals, and published "Experimental Observations on the Operation of Lithotomy." The most conspicuous scientific worker among the medical men noticed in this volume was Thomas Bevill Peacock, who was born at York in 1812, his parents being members of the Society of Friends. In 1833 he came to London, studied medicine at University College and St. George's Hospital, spent some time abroad, and graduated at Edinburgh University as M.D. in 1842. In 1849 he became assistant physician to St. Thomas's Hospital, in 1850 he was elected a Fellow of the Royal College of Physicians of London, and in 1865 he delivered the Croonian Lectures there on Some of the Causes and Effects of Valvular Disease of the Heart. A dispensary originated by him in the City of London ultimately developed into the present Victoria Park Hospital for Diseases of the Chest, to which he was physician from its commencement. He was also one of the founders of the Pathological Society of London in 1846, and filled the offices of Secretary in 1850, Vice-President in 1852-56, and President in 1865 and 1866. Besides his Croonian Lectures above mentioned, he published treatises on the Influenza or Epidemic Catarrh of 1847-8, on Malformations of the Human Heart, and on the Prognosis in Cases of Valvular Disease of the Heart. He contributed numerous papers to the transactions of various medical societies, and was awarded a gold medal by the Royal College of Surgeons of England in recognition of his valuable additions to their museum. In May, 1882, while walking in St. Thomas's Hospital, he became suddenly unconscious, and died on the following day. George Pearson, born in Rotherham in 1751, studied medicine in Edinburgh and graduated there as M.D. in 1773. In 1784 he was admitted a Licentiate of the Royal College of Physicians of London, and in 1787 became physician to St. George's Hospital, where he lectured on chemistry, materia medica, and the practice of physic. He was among the first to recognise the value of Jenner's discovery of vaccination, and in 1799 a vaccine pock institution, with which Jenner had no connexion, was established by his efforts at 5, Golden-square, but when Jenner was rewarded by Parliament for his services Pearson was ignored, and subsequently took every opportunity of denouncing Jenner. He was physician to the Duke of York's household and a scientific chemist of much ability; the designation "uric acid" is said to be due to him. He died in 1828. John Pechey, admitted a Licentiate of the Royal College of Physicians of London in 1684, was admonished by the College in 1688 for distributing handbills and displaying a signboard; being recalcitrant, he was fined £4, and on a subsequent occasion £8. He published several works, the best known being an English translation of Sydenham's writings, which reached its eleventh edition in 1740. He is supposed to have died in 1716. Surgeon-General Saville Marriott Pelly was born in 1819 and passed the most active years of his life in India. The biographical notice of him is somewhat meagre, but readers of THE LANCET will find a full account of his career in that journal for April 20th, 1895. Christopher Robert Pemberton was born in Cambridgeshire in 1765 and graduated as M.D. at Cambridge in 1794. He was elected a Fellow of the Royal College of Physicians of London in 1796, was Gulstonian Lecturer in 1797, was Censor in 1796, 1804, and 1811, and delivered the Harveian Oration in 1806. He was physician to St. George's Hospital from 1800 to 1808, and physician extraordinary to the King. He was the author of a work entitled "A Practical Treatise on Various Diseases of the Abdominal Viscera," containing some important contributions to medical knowledge, and he died in 1822. Henry Pemberton, born in London in 1694, graduated as M.D. at Leyden in 1719, was appointed Gresham Professor of Physic in 1728, and from 1739 to 1746 was employed in the preparation of an edition of the London Pharmacopœia. He was, moreover, so accomplished a mathematician that he was engaged by Sir Isaac Newton to superintend the third edition of the "Principia," published in 1726. He was an industrious writer on a variety of subjects and died in 1771. Thomas Percival, born in Warrington in 1740, studied medicine in Edinburgh and Leyden, and graduated at the latter university in 1765. In 1767 he settled in Manchester and devoted much of his energies to the advocacy of sanitary improvements and factory legislation. The Manchester Literary and Philosophical Society was founded at his house in 1781, and he filled the office of President almost continuously from 1782 till his death in 1804.

Dorothy Wyndlow Pattison, daughter of a Yorkshire rector, and sister of Mark Pattison of Oxford University, was born in 1832. In 1864 she became, in opposition to her father's wish, a member of the Sisterhood of the Good Samaritan at Coatham, in Yorkshire, and adopted the name of Sister Dora. In 1865 she was sent to a small cottage hospital established at Walsall by the sisterhood, where she soon became familiar with the treatment of wounds and fractures, and acquired some knowledge of anatomy through regularly attending the post-mortem examinations. In 1877 she was placed in charge of the Municipal Epidemic Hospital at Walsall, occupied chiefly by cases of small-pox, but cancer had already shown itself and carried her off in the end of 1878. Patrick, the famous patron saint of Ireland, was born in Scotland in the year 373, his father being a magistrate in Dumbarton, which was at that time a fortress held by a Roman garrison. In 389 the youth was captured in a raid and carried off to Ireland, where he was sold as a slave, but after six years he escaped to France and spent several years there, probably with St. Martin of Tours. Having been consecrated a bishop, he commenced his mission to the heathen Irish probably in 405. The date of his death may be reckoned as 463, and, according to St. Bernard, he was buried at Armagh. Another evangelist of the heathen in our own generation was John Coleridge Patteson, first missionary bishop in Melanesia, who laboured among the South Sea islanders from 1865 until 1871 when he was killed by natives of the island of Nukapu in revenge for an outrage committed there by some Englishmen a few months before.

LIBRARY TABLE.

Outlines of Practical Physiology: being a Manual for the Physiological Laboratory, including Chemical and Experimental Physiology, with reference to Practical Medicine. By WILLIAM STIRLING, M.D., Sc.D., Edin, Brackenbury Professor of Physiology and Histology in Owens College and Professor in Victoria University, Manchester; Examiner in Physiology in the Universities of Edinburgh and London. Third Edition, revised and enlarged, with 289 Illustrations. London: Griffin and Co. 1895. 6*s*.—This is the third edition of an excellent manual which is admirably adapted for work in the physiological laboratory. While its essential features remain unchanged the subject matter has been rearranged in the present edition, and a considerable number of additions have been made, including a short appendix on

recording apparatus. The work is profusely illustrated, a large number of the illustrations being new and several of the woodcuts being from original drawings. The design is well conceived and the method and arrangement are good, and no pains seem to have been spared by its author to make it a sound and instructive handbook and guide for the student of science and medical practitioner.

A Woman's Words to Women on the Care of their Health in England and in India. By MARY SCHARLIEB, M.D., B.S. Lond. London: Swan Sonnenschein and Co., Limited. 1895.—This is a very good little book dealing wisely and well with a number of details which are necessary to be known in regard to the hygiene and health of women and children in this country and abroad. It is clearly and practically written, and will prove especially useful to those who are proceeding to India and the colonies. A large amount of preventable ill-health and discomfort is produced by the want of some knowledge of physiology and the laws of health and the exercise of a little timely care and foresight, and this want the book in question is calculated to supply.

Tours in the West Indies.—This is a handy little pocket guide giving the itinerary of the tours arranged for the winter service of the Royal Mail Steam Packet Company. In addition to the itineraries there are some useful notes on the chief points of interest attaching to the various islands, and there is a good map showing the routes taken by the company's steamers. Those who contemplate wintering in this part of the New World will find the guide, which is well illustrated, of service.

On Appendicitis and Perforation of Gastric and Duodenal Ulcer. Being the Ingleby Lectures for 1895. By GILBERT BARLING, F.R.C.S. Eng. Birmingham: Cornish Bros. 1895.—The subjects treated of in this little book have been so much to the fore of late that a clear exposition of diagnosis and treatment, with the appended catena of cases operated upon, both successfully and the reverse, is of great value. The impression left upon the reader is, undoubtedly, that operative interference is imperative the moment that there is reason to suspect the formation of pus. The necessity for freedom of drainage is also insisted on. Though, as the author says in his preface, there is nothing very new in his remarks, yet the clear way in which his facts are set forth make these lectures a valuable addition to the literature of the subject.

Vorlesungen über die Zelle und die einfachen Gewebe des Thierischen Körpers. Von Dr. R. S. BERGH, Docent der Histologie und Embryologie an der Universität Kopenhagen. Wiesbaden: C. W. Kreidel. 1894. (Lectures on the Cell and Simple Tissues of the Animal Body. By Dr. R. S. BERGH, Teacher of Histology and Embryology at the University of Copenhagen. Wiesbaden: C. W. Kreidel. 1894). London: Williams and Norgate. Pp. 262. Price 7*s.*—These lectures constitute an introduction to the study of histology which is fully abreast of the discoveries of modern research. They are clearly written and abundantly illustrated with figures, most of which are reproduced from the works of leading authorities on the subject. Commencing with a description of unicellular organisms, the morphology of the cell is given in detail. It is stated *en passant* that the disappearance of the nucleus from the cell—as in the red blood corpuscle—is to be regarded as a mark of degeneration, and hence the brief existence of such corpuscles. The finely fibrillar structure of cell substance is well illustrated, and the remarkable constitution of the nucleus, one of the most striking additions to knowledge made by microscopical investigation, is dwelt upon. The essential functions of the cell are summed up as consisting in movement, irritability, and metabolism, the two first-named properties being possessed by the cell substance, and the last named by the nucleus as well as the protoplasm. Then comes a description of the direct and indirect processes of cell division, the mechanism of fertilisation, and lastly the formation of deposits in and around cells. The rest of the work is concerned with an account of the animal tissues, epithelial (including glandular), muscular, nervous, and connective.

Physiology. By A. MACALISTER, M.D., F.R.S., &c. London: Society for Promoting Christian Knowledge.—This unpretending little book is one of a series of manuals of elementary science published by the Society for Promoting Christian Knowledge and the collocation of the publishers, and the subject is, we think, a happy one. It commences with a short and clearly put account of metabolism, diet, and cookery, leading to digestion and assimilation, and the author then passes by an easy transition to the circulation of the blood, which in its turn leads to respiration. Then follows an account of the tissues and the excretory glands as well as the ductless glands. The latter part of the book treats of the nervous system and the special senses, finishing with a few words upon life and death. Short as the account necessarily is, the subject is well and clearly handled.

JOURNALS AND REVIEWS.

The Quarterly Journal of Microscopical Science. Edited by E. RAY LANKESTER, F.R.S., ADAM SEDGWICK, F.R.S., and W. F. R. WELDON, F.R.S. London: J. & A. Churchill. August, 1895. Pp. 174. Price 10*s.*—This part contains four articles, none having special bearing on medicine. 1. Edward T. Browne, B.A.: On the Variation of Haliclystus Octoradiatus, with a plate. 2. George Bidder: The Collæcites of Heterocœla, with a plate. 3. Henry Bury, M.A.: The Metamorphosis of Echinoderms, with seven plates. 4. Gilbert C. Bourne, M.A.: A Criticism of the Cell Theory, being an answer to Mr. Sedgwick's article on the Inadequacy of the Cellular Theory of Development. Mr. Browne found in 154 specimens of Haliclystus 120 normal and 34 abnormal specimens, the variations affecting the colleto-cystophors, the genital bands, and the number and position of the groups of tentacles. The criticism of Mr. Bourne on Mr. Sedgwick's article is ably written.

The *Journal of Comparative Pathology and Therapeutics* for the current quarter contains an article by Mr. F. Hobday entitled "Some Minor Operations in the Dog and Cat," which many of our readers who have four-footed friends dependent upon them will be interested to read. For, *pace* the rabidity of certain anti-vivisectionists and their organs, many medical men love dogs and cats and desire that they should live happy and healthy lives.

New Inventions.

PARACENTESIS NEEDLE FOR USE WITH HYPODERMIC SYRINGE.

FOR some years back I have used the paracentesis needle represented in the accompanying engraving, which has been made for me by Messrs. Arnold and Sons, London, and several medical friends who have seen it have procured similar ones for themselves. The instrument has one arm for a hypodermic syringe, and another arm to which indiarubber tubing can be attached; the central tube carries a fine needle. The advantages of the little contrivance are that a very small and not alarming instrument is used for the exploratory puncture, and that fluid if found can be removed at once. A word on the mode of use may not be amiss. The instrument having been carefully sterilised, the trocar in place, the stopcocks open, and the syringe filled with hot water, the water is driven through the instrument till only a drop or two remains in the syringe. The arm for the indiarubber tubing is now closed by the stopcock, the puncture made, the needle withdrawn, and the central stopcock closed. The couple of drops of warm water remaining in the syringe if

now pressed out will sufficiently dilute any thick fluid that may be found to allow it to flow through the needle when the piston is withdrawn. If fluid is found, the indiarubber tubing connected with an exhaust bottle can be attached at once. Should the needle get blocked, the simplest way to remove the obstruction is by injecting a little warm water

from the hypodermic syringe, which of course should have again been sterilised. This description sounds rather complicated; but a simple glance at the instrument even without any description would make clear the mode of use to anyone acquainted with its purpose.

WILLIAM R. HUGGARD, M.R.C.P. Lond.
Davos Platz, Switzerland.

AN IMPROVEMENT IN THE CONSTRUCTION OF GRATES AND STOVES.

To partially obstruct the lower part of the chimney immediately over the fire with parallel plates of zigzag iron would by most people be considered an absurdity. Yet this is practically the principle of an invention which we have recently inspected and examined, and which is claimed to consume smoke and to prevent the waste of heat up the chimney. It may be stated at once that the latter is to a very large extent ensured, since obviously, the draught being greatly reduced, the heat is not carried away in the rapid way that it is in the case of an ordinary grate, where the burning fuel is immediately underneath the wide opening of the flue. At first sight, however, it is difficult to see how such a device could possibly consume the smoke, but indirectly and to some extent it does so. The smoke issuing from the top of the chimney, serving as a flue to the stove we inspected, was quite destitute of the murkiness and sooty character of ordinary smoke, and a plug of cotton-wool placed in the flue within about 5 ft. of the fire was browned not, as it proved on testing, with tarry matters or soot, but chiefly with mineral matters containing largely oxide of iron. This was shown on treating the plug of wool with ether, which, on evaporation, yielded no tarry residue. On burning another piece of the wool the darkened portion did not disappear, but remained eventually as an indestructible brown ash. The arrangement of zigzag or corrugated metal plates, which serves in a measure to screen the smoke from its carbonaceous particles, and which, being caught in these plates, gradually burn away as the plates get hot, may be thus described:—The plates, preferably formed of cast iron, are arranged parallel to each other above the fire and under the entrance to the chimney, and are not flat, but of zigzag or corrugated form, the corrugations extending horizontally from front to back. The corrugation does not extend to the top of the plate, the upper part being left flat. A large gap is also left in the back edge of each plate, and a cast or wrought iron plate is placed at the back of the grate between the side plates fitting into this gap. A long bolt passes through the side plates and the plate at the back to secure the latter in position. A flange is provided on one side at the top of each plate. These flanges have the effect of keeping the plates at a suitable distance apart, and form also a series of narrow parallel channels, sloping slightly upwards, and serving as outlets for the products of combustion into the chimney after they have passed between the plates. The channels between the plates are narrowed as the soot accumulates, but a clear passage is always maintained, since as the plates get hot the soot appears to be slowly consumed. The plates in any case can be readily brushed clean when desired. The inventor claims that the soot so deposited plays an important part in absorbing any incomplete products of combustion which eventually disappear with the soot. This we have not established. Still, we found that the smoke issuing from the fire is robbed very considerably of its blackness and murk, and the products eventually gaining outlet into the air are free from the reproach which can be justly levelled against the outpourings of the majority of chimneys in London. Analysis showed that only traces of carbonic oxide, sulphuretted hydrogen, and unburnt hydrocarbons existed in these products. The invention does not aim directly at the perfect combustion of the fuel, but rather at removing the greater part of the sooty particles in the smoke; consequently it can be applied to any grate. It would be an excellent thing if every coal fire in London had some such device attached to it, since it would tend to minimise to an important extent the blackness which befouls the air of the metropolis, and which is largely responsible for the prevalence of the detestable and unhealthy "solid" fog in the winter season.

The grate which we examined was working in a small room at the offices of Messrs. Clarke and Bracey, 64, Coleman-street, E.C.

CARSON'S "ANTI-STOOP."

THE "anti-stoop" is an appliance for preventing or curing stooping habits. It consists of two steel arms connected at the back by a cross-piece and passing up the back of the wearer to within about three or four inches of the neck, where they branch out on either side and come over the

shoulders. At the extremity of the arms are attached padded blocks, which press gently and uniformly upon the shoulders, gradually forcing them into their proper position. The parts of the body best fitted to bear pressure are the ones, and the only ones, on which the pressure falls; these parts are the centre of the back and the front of each shoulder. The excoriation and abrasion of the skin caused by the pressure and friction of straps passing under the arms are entirely avoided. Owing to the elasticity of the steel it will give way to any sudden movement of the wearer, instead of breaking or cutting into the flesh as shoulder straps do. It can be put on and adjusted by the wearer in less than three minutes, and once adjusted can be put on without assistance in almost as few seconds, there being no straps or bands to buckle at the back. It is made in sizes to fit ladies, gentlemen, and children.

Messrs. Arnold and Sons, West Smithfield, London, are the sole agents for the sale of this appliance.

THE LANCET.

LONDON: SATURDAY, NOVEMBER 23, 1895.

IT is doubtless a disappointment to the members of the General Medical Council not to be able to meet in their new council chamber on Tuesday next. But they have every reason to believe that the hospitality of the Royal College of Physicians of London will reduce the inconvenience of such a state of matters to a minimum. We were never sanguine that the alterations would be completed in time, and unexpected causes of delay, usual in such cases, have combined to confirm our views. It does not follow that the officials of the Council are to blame, and we believe that the President has done everything that was possible in the circumstances to fulfil the original hopes and designs of the Council. In one point he is certainly right, and that is in summoning the meeting at the usual time. The functions of the Council are too grave to be postponed for slight reasons, and though there seems to be a notion abroad that there is no serious business to be transacted we do not share the feeling. Certain gentlemen were left at the last meeting in a state of suspense as to their professional position. It is right that their cases should be defined and settled. In another important case an appeal to the Council for restoration to the Register, or even for a reconsideration of the whole facts, was referred to the Solicitor of the Council and may have to be dealt with. These cases ought not on the one hand to occupy much more of the time of the Council, but they must not on the other hand be disposed of with raw haste. The character of every registered practitioner is of consequence to the medical profession, and the principles which are at stake in such cases are of still more consequence. There is some reason to fear that for the present the Council will not have the usual assistance from the Medical Defence Union in the preparation and presentation of cases. It may be remembered that at the last meeting a case broke down from the fact that the same witnesses made opposite statements when appealed to by two sets of persons. Some members of the Council reflected on the indefatigable secretary of the Medical Defence Union. The secretary declared it was impossible to prevent such things or to cope with them until they had the power to summon witnesses and submit them to cross-examination. And we learn that the society which he represents so far agrees with him as not to intend to assume a prosecuting position at the present meeting. The Council cannot well initiate prosecutions or prepare them. It cannot be both accuser and judge. Some way must be found out of this difficulty. The Medical Defence Union and the London and Counties Medical Protection Society have done admirable service in the past at great cost, and until the Public Prosecutor becomes a more palpable and effective functionary than he is at present the withdrawal of defence societies from the work of prosecution may be a serious misfortune for the profession.

The Council will be asked by the Apothecaries' Hall of Ireland to appoint Examiners in Surgery, the Royal College of Surgeons in Ireland having withdrawn from conjunction with the Hall for purposes of giving a full qualification as required by the Act of 1886. This matter is a very important one and deserves careful attention. It is known that the Conjoint Examinations in question were considered so unsatisfactory that the Council, on the motion of Sir DYCE DUCKWORTH and Mr. BRYANT, resolved to report them to the Privy Council. What result the answer of the Privy Council will have on the action of the Council remains to be seen. But the Act of 1886 gives it power, *if it see fit*, to appoint assistant examiners to enable any corporation, otherwise unable to do so, to hold a qualifying examination under the Act. At the June meeting, on the motion of Dr. MACALISTER, seconded by Dr. MCVAIL, it was resolved: "That the Examination Committee be instructed to prepare for the consideration of the Council at its next session a series of specific recommendations embodying the results set forth in the summary of their reports." The ever-growing multiplicity and complication of examinations give an additional importance to their inspection and visitation and make it incumbent on the Examination Committee to extract any lessons it can from the inspections in the interest of the candidates and of the public. It has never appeared to us that this serious and costly part of the Council's work received the measure of attention which it merits. The motion of Dr. MACALISTER, allowing as it did six months for its consideration by the Examination Committee, leads us to expect "a series of specific recommendations" that will deal closely with the whole subject of final examinations. If ever inspections are to be utilised and made instructive it must be at the end of a complete series of them, and now, consequently, is the time for any suggestions that would improve examinations as tests "of the possession of the knowledge and skill required for the efficient practice of medicine, surgery, and midwifery."

Besides these various subjects to the consideration of which the Council is committed, there will doubtless be others arising from the motions of individual members, of which we cannot know till the appearance of the programme of business. The profession will expect to hear something of the progress made in the preparation of a new Pharmacopœia. At its last meeting the British Medical Association passed resolutions requiring its council to bring before the General Medical Council various matters of interest to the profession—notably the subject of the constitution of the General Medical Council, the inadequate amount of instruction in practical midwifery required by the Scottish medical authorities, and the objections to the creation of medical, surgical, or midwifery practitioners other than those registered under the Medical Acts. The British Medical Association does not now ask the General Medical Council to move in procuring an increase in the direct representation of the profession on the Council, but gives it notice that it is about to do so. The Council has already intimated that it will consider any Bill for the amendment of the Medical Acts introduced by the Government. We think the time is favourable for asking the Government for some very much needed amendments in the Medical Acts, including some extension of the principle of direct representation. It is to be regretted

that the Council has not shown more sympathy with the principle. It has been beaten once on this subject, and it may be beaten again. But the prospect of success will depend on the sense of moderation and proportion which is shown in the demands for amendment. Be this as it may, the Council seems to be likely to be fully occupied for four or five days.

THE view, which is becoming more and more widely accepted, that the complex of symptoms—ocular, nervous, and cardio-vascular—which characterise Graves's disease depend upon perverted or excessive function of the thyroid body has not only afforded a fairly satisfactory explanation of its varied phenomena, but has likewise led to the advocacy of such a radical measure of treatment as thyroidectomy, complete or partial. Apart from the severity of this measure in comparison with the different kinds of treatment which have been based on symptomatic grounds—such as the prescription of digitalis or of belladonna, of galvanism of the sympathetic, and such like—there always remains the problem as to the natural cause of the disease. We meet with all forms of the disorder, from the comparatively mild or abortive types ("forme fruste" of MARIE) characterised by slight vaso-motor disturbances, tachycardia and tremors, and without appreciable proptosis or even obvious thyroidal swellings, to the extremely severe forms with exaggerated nervous symptoms, including mental derangement, cardiac dilatation and its results, a thyroid tumour which threatens life by compression of the air passages, and a high degree of exophthalmos. Happily these severe cases are not very common, and for them perhaps any method of treatment is justifiable. But so uncertain and indefinite is the progress of the affection that spontaneous amelioration or entire recovery may ensue, even in cases which at one time appear to be most serious. Hence there are few diseases in which the question of prognosis is more involved in difficulty, or concerning which so much difference of opinion exists. If hospital returns are alone to be relied on, it might appear that fatal cases of Graves's disease are of great rarity; that the majority of the patients, after some months' rest and hospital treatment, pass out with their symptoms relieved or practically unaltered, whilst complete recovery is as rare as, or rarer than, death. The question is essentially one which can only be solved by the collocation of facts from the large body of general practitioners. The specialist or the hospital physician, although personally seeing far more examples of the affection than any individual general practitioner, is far less well informed as to their course after they have passed from his care. The mortality statistics are, therefore, both very diverse and very indecisive, ranging from 50 to 10 per cent.

In an address on the subject lately given by Professor PIBRAM of Prague,[1] attention is drawn to these divergent opinions, the author remarking that in his own thirty years' experience he was only able to recall three deaths in hospital and one death (from diabetes) among a large number whose history had been traced for several years after they had left the hospital. In the great majority the cardinal signs of the affection gradually disappeared—a recovery which was known to have lasted for many years (in some cases even as long as twenty years) and which therefore might be regarded as complete and permanent. Moreover, his favourable results are not based upon the observation of what may be termed the milder forms, for he gives particulars of some which were of the most severe type, associated with grave signs of cardiac failure and yet eventuating in recovery. One object of Professor PIBRAM'S paper was to check the tendency to resort to such a grave measure as thyroidectomy, and it may be remarked that the attribution of the phenomena of the disorder to primary thyroid change does not *per se* call for so radical a remedy. There is no reason why under less strong measures, or simply in the natural progress of the case, the gland should not of itself pass back from the abnormal to the normal state of activity. If it be true that the thymus gland has properties antagonistic to those of the thyroid, then a comparatively simple remedy may be found which may be as potent in Graves's disease as thyroid extract is in myxœdema.

This question of prognosis in Graves's disease, upon which so much turns, seems to be one peculiarly fitted for investigation; and it might be well worth consideration by one of our medical societies whether an inquiry for the object of determining the after-history of cases could not be instituted. There are many points that require elucidation. Thus, it would be valuable to know the order of onset of the various phenomena, their relative preponderance, the degree of cardiac derangement, and the kind of complications. Then in tracing out the later lives of those who have at one time or another shown symptoms of the affection, it would be important to ascertain not merely the duration of those symptoms or the time that had elapsed since their disappearance, but the subsequent history of the patient's mental and physical health. What proportion of those persons who have had "Graves's disease" are permanently invalided—by anæmia, by cardiac enfeeblement, or by more serious disturbances? Does the liability to tachycardia entirely disappear under all circumstances? In how many cases do actual relapses take place? What proportion are subject to pulmonary disease; or is there any special proclivity to organic affections, such as tuberculosis or cancer, albuminuria or diabetes? Do any of those who have had Graves's disease in early life suffer later from atrophy of the thyroid gland and myxœdema? What, in fact, are the prospects of health and of the duration of life in one who has been the subject of this affection? There can be no doubt that as regards many, if not most, of these questions we have comparatively little definite information, and yet there must be ample material ready to hand to supply the answers if only it could be collected.

THE preparations for the Ashanti Expedition go on apace. Some of the troops, with a considerable quantity of stores and equipment, have already been embarked at Liverpool and started for the Gold Coast, and others will shortly follow. The composition of the force, as it stands at present, will be: 600 of the West India regiment, 400 of the 2nd West Yorkshire, and 200 of the composite battalion—with the

[1] Wiener Klinische Rundschau, 1895, No. 44.

addition of fifteen or sixteen hundred made up of the Houssas and local native corps, and a contingent possibly from the Royal Navy. The Houssas have the reputation of being capital soldiers, especially for bush warfare. It is a very noteworthy and fortunate circumstance that nearly all the military authorities at headquarters, from Lord WOLSELEY downwards, who have been engaged in making the preparations for the forthcoming expedition, have a knowledge of the country acquired from actual service in it during the 1873-4 campaign, and have therefore had a personal experience of what are the necessary requirements now. Sir FRANCIS SCOTT, who goes in command of the expedition, is peculiarly fitted for the post, for he is an officer of long and distinguished service with the 42nd Highlanders in the Crimea, the Indian Mutiny, and in the Ashanti War of 1874, and subsequently, since his appointment as Inspector-General of Constabulary on the Gold Coast, he has successfully conducted two little campaigns in defence of the States under the British Protectorate.

Previously to the Ashanti Expedition under Sir GARNET WOLSELEY in 1873-4, and almost up to the very time of its being undertaken, the results of our experience of campaigns in that climate had been very unfortunate and even disastrous. We can well remember the gloomy forebodings that were indulged in at the time. It was prophesied that in a campaign undertaken by white troops in that climate the force would probably perish from sickness in a futile attempt to penetrate inwards to Kumassie, and people pointed to the results of previous expeditions in corroboration of the opinions they freely expressed. But it was altogether lost sight of that such expeditions had always been undertaken at the wrong season, and that the troops had already been deteriorated in health from residence in bad and insanitary garrisons, and had been very badly provided for and equipped for service in the field; whereas a careful consideration and survey of all the facts warranted the belief that if an expedition were undertaken in, and its operations confined to, the dry and healthy season, and if proper sanitary precautions were taken and the troops were provided with fresh instead of salt provisions and properly equipped, and if the campaign were conducted with all practicable celerity, there was every prospect of its being successful. That was the view entertained and expressed in THE LANCET at that time. The "ifs" were all discounted by the arrangements that were then made, and the result is a matter of history. It was called a doctors' and engineers' war. The stations on the seaboard were relatively few and unhealthy from sanitary neglect, the soil and climate—especially of the dense bush and low-lying portions of the country—were notoriously malarious, and fevers and dysenteric affections were very prevalent. But the climate of the Gold Coast is not of the same character all the year round, and all parts of it are not equally unhealthy; in the dry season these diseases are not only much less common, but less grave. In an expedition by the Government of the Netherlands to Kwassie-Kron in 1869, for example, the troops were healthy. Anyone who cares to turn to the medical history of the Ashanti War of 1873-74 by Sir A. D. HOME, V.C., will find a very full and graphic account of the military expeditions in the Gold Coast Protectorate of that and previous years. Sir ANTHONY HOME states that much of the loss formerly accruing to such expeditions had been due to causes quite preventable, and he adds that this consideration no doubt greatly influenced the opinion expressed by the then Director-General (Sir WILLIAM MUIR) on the sanitary prospects of the last expedition. With regard to the detailed sanitary instructions and the equipment of that expedition he says that every point connected with it had been studied with special attention to the circumstances of an exceptional kind of campaign, and untrammelled by restrictions springing from the view that what had done before might do again; and he adds that no so carefully-provided-for expedition had ever left the shores of this or of any other country. There is no reason to suppose, therefore, that anything will be lost sight of as far as sanitary considerations are concerned on the present occasion. The older expeditions, in addition to being badly organised and supplied, just got far enough into the interior to incur all the risks of the worst places without ascertaining if things were better further on.

The route from Cape Coast Castle by the River Prah is the most direct one, but the country about Accra possesses some roads, and is much more open and hilly than that in the vicinity of Cape Coast, although the route from Accra to Kumasi—a distance of about 250 miles—is a more circuitous one. The Akropong Hills are on the direct road from Accra to Kumasi, and there seems to be no reason why some of our troops should not hereafter be quartered there or in some healthy locality in the uplands, instead of occupying the unhealthy stations they do at present on the sea coast. Be this as it may, we are chiefly interested at the present moment in the medical and hygienic aspects of the forthcoming campaign. There is no animal transport in the country, and a large force of native bearers will consequently have to be organised and everything adapted with a view to facility of transport. War is costly at any time, and small wars are disproportionately so, but that will be found the most economical procedure in the end which anticipates and provides for all reasonable contingencies. There is, of course, no doubt about the malarious and unhealthy nature of the climate, and this being so we may anticipate a good deal of sickness without necessarily a corresponding rate of mortality. But what we contend is that the sickness is mostly of a preventable character. There were only eighty-one deaths from disease and loss in action in 2587 officers and men of the European force that marched to Kumasi under Sir GARNET WOLSELEY: the mortality at the end of four months after the country had been left was 3·14 per cent. of the strength disembarked. As regards diseases, malarial fevers and dysentery are those most likely to be encountered. New comers are liable to be attacked with a climatic form of fever of short duration—the so-called seasoning fever. Quinine is now supplied in the form of tabloids and can be easily carried. We may incidentally remark that the hydrochlorate is the most soluble and efficacious form of quinine. Outbreaks of small-pox occasionally occur, but small-pox is much more likely to prove dangerous to the enemy than to a well-vaccinated army. We understand that a supply of

Pasteur-Chamberland filters will be sent with the force, and, we suppose, alum for water clarifying purposes. Ample supplies of ice are absolutely essential for the sick, and, we may add, for the comfort of the healthy also. On the occasion of the last campaign a large man-of-war, the *Victor Emmanuel*, was fitted up as a hospital ship, and the late Professor PARKES said that such a floating hospital had never, he supposed, been sent out before, and he especially extolled the ingenuity, completeness, and simplicity of the plans by which all the hospital requirements had been met. A full and critical description of this vessel was published in THE LANCET of Nov. 22nd and Dec. 6th, 1873. On this occasion the Peninsular and Oriental steamer *Coromandel*, of 4499 tons and 4500 horse-power, has been selected for the purpose, and is now in the Royal Albert Dock undergoing the necessary changes to fit her for the special work in view. We may assume that some arrangement will also be made for providing some kind of base hospital and depôt on shore at which the sick and invalids coming from the front can be received, rested, and furnished with food and supplies generally pending their embarkation on board the hospital ship. Some provision will also be made, no doubt, for the periodical transport of invalids to this country, or elsewhere if deemed necessary. We do not see why some method could not be devised for supplying soldiers on the march to Kumasi with a certain amount and variety of portable food to be used in case of need and on a forced march.

Sir WILLIAM MACKINNON, the present Director-General of the Army Medical Service, was the Principal Medical Officer of the force during the latter part of the campaign and at the taking of Kumasi in 1873-74, and his experience will therefore be valuable. Surgeon-Colonel TAYLOR is going as Principal Medical Officer of the force and he will have an opportunity of comparing and contrasting the field medical arrangements in Ashanti with those of the Japanese in the late Chino-Japanese War, at which he was present, and of which he has so recently given us a graphic account. It goes without saying that one of the great secrets of administrative success in war, especially as far as the medical service is concerned, consists in the provision and arrangement of stores and supplies ready and available for use, and in the organisation and preparedness of everything at the base; and there will be time for the accomplishment of this before the force starts and the field operations commence.

FLOODS IN BRISTOL.—Owing to the recent heavy rainfall a culvert in Montpelier, Bristol, has recently burst. This has happened on several occasions, the last time being a year ago. The damage then caused was extensive, walls being demolished and household goods destroyed, for which, although legally tested, the sufferers were unable to obtain compensation. These unfortunate scenes were repeated on this occasion. A year ago the Sanitary Committee officially submitted a remedial scheme, but beyond this nothing whatever has been done. The Bristol Sanitary Authority should at once take steps in this matter, as in addition to the great destruction of property, it is stated that illness, and even death, have been caused through the effects of these inundations.

Annotations.

"Ne quid nimis."

"RETURN CASES" FROM INFECTIOUS HOSPITALS IN THE METROPOLIS.

SO-CALLED "return cases" of scarlet fever—by which are meant cases occurring in a household shortly after the return home of a patient discharged in ordinary course from an infectious hospital—have attracted much notice of late. Something more is required to explain them than want of care and precaution in discharging the patient from hospital on the one hand, or omissions in the disinfection of his clothing at the time of removal on the other. The problem is one for consideration together with wider questions of the infectiveness of scarlet fever, and at the Epidemiological Society on Nov. 15th Mr. T. W. Thompson read a very instructive paper (which is published in full in our present issue) from this point of view. In the discussion which followed, the reality and importance of these cases were hardly called into question by any of the medical superintendents or medical officers of health who took part in it. Some doubt, however, is thrown upon the frequency of occurrence of return cases by a recent report of a sub-committee of managers of the Metropolitan Asylums Board. This sub-committee applied to the several medical officers of health of the metropolitan district for information of outbreaks of illness in households after the return home of recovered patients from the Board's fever hospitals, and report that only 165 cases of alleged infection are recorded, and in many of these there is probably no connexion of the occurrence with the return of the patient. Of these 165 cases 49 occurred in 1895, 10 from 1890 to 1891, "leaving 106 cases for the two years 1893 and 1894, during which time 30,227 patients who had been suffering from scarlet fever and diphtheria were discharged from the hospitals of the Board"—giving one alleged case of infection for every 285 discharges. From the small proportion thus shown the sub-committee conclude "that there is no evidence to show that any appreciable number of patients admitted to the Board's hospitals during the past two years have contracted infection from patients previously discharged therefrom." This conclusion is reassuring, but the figures upon which it is based should be received with some caution. It will be noticed that the 30,227 discharges were cases of diphtheria as well as of scarlet fever. Now return cases of diphtheria have not been heard of in at all the same proportion as similar cases of scarlet fever, and the number of them actually reported to the sub-committee, although not stated, is probably insignificant. Obviously return cases should have been compared with discharges for each disease separately; any proportion obtained by combining the two is misleading. Again, as regards the 165 cases reported, the appendix to the report shows that these are communicated by only twenty-six out of fifty-two metropolitan medical officers of health. For the other twenty-six some, like the medical officer of health of Bethnal-green, report that a number of cases have occurred, but do not supply details; others reply that they have no evidence bearing on the subject, and where such replies as these have been received for a district the sub-committee appear to have reckoned that district as having had no return cases at all. Further, no less than 93 of the 165 cases are reported from five sanitary districts alone, and while the sub-committee appear to find an explanation of this circumstance in faulty methods of disinfection practised in some of these areas, it is difficult to discover their grounds for this conclusion when the details given in the appendix are studied. On the other hand, the way in which the

figures have been compiled gives a ready explanation of this anomalous incidence. That the frequency of return cases of infectious illness may have been somewhat exaggerated is not unlikely, and that the experience of the metropolis in regard to them would be of the greatest value is certain. The subject well deserves further investigation by the Metropolitan Asylums Board, who might entrust it with advantage to inquirers possessed of some acquaintance with statistical methods.

A "DOCTORS' WAR."

WE have despatched a special correspondent to the seat of the war, as it is clear that the success of our military operations may turn largely upon the health of the expeditionary force. That our representative himself thinks so will be gathered from a short article, which appears from his pen on page 1314, wherein he draws upon a large experience of Ashanti to give a few details as to the medical, sanitary, and hygienic precautions that should be taken by Europeans upon the West Coast of Africa.

A JUDGE ON EPIDEMIC CRIME.

THERE is no doubt that Mr. Justice Wills entered upon the Hampshire autumn assizes with feelings of the most unmitigated disgust. Nearly one-third of the cases, he said, were of "a disgusting and filthy nature." The county at the present time, he said, seemed to be infected with a sort of epidemic of indecency, and during his long experience he had never been on any circuit where there had been such an outbreak as now presented itself, except, perhaps—and the statement was of particular interest—on the first circuit after the discussion of the articles in the papers which led to the passing of the Criminal Law Amendment Act. The outbreak, he thought, might be in some measure due to the events which had lately occurred in London, and probably when they had been forgotten the epidemic might die away, and he hoped this would be the case. Apparently he could not find strong enough phrases in which to refer to one case—a most gross charge against a county magistrate and a policeman. In this case his lordship had a long correspondence to read, which he says included letters "perfectly incomparable in their depth of degradation," showing "an amount of degradation and shame which was really inconceivable." He selected the two worst letters—both written on a Sunday and intermixed with pious phrases—which he said he hoped would suffice for the jury. There is no doubt that there is a great deal of truth in Mr. Justice Wills's remarks.

THE "NEUROSES OF CULTURE" AND THEIR REMEDIES.

WHAT Carlyle calls "diseased developments" are all too certainly caused by unhealthy literature, resorted to, as it is apt to be, for vicious excitement or sensational "distraction." We lately commented on the enactment of certain Swiss cantons by which reports of suicide are excluded from their press, these reports having been found to have a contagious effect on individuals already disposed to self-destruction. The recent charge of one of our own judges in delivering sentence on two juvenile murderers pointed so far in the same direction as to convey a strongly worded *caveat* against indulgence in the literature of crime. There are, moreover, other forms of mental deterioration induced by printed matter, less deadly, indeed, but tending to disastrous results, some of which have not inaptly been described as "neuroses of culture." This was incidentally illustrated the other day in an exceedingly vivacious and instructive lecture by Mr. Frederick Harrison on "The Choice of Books"—a subject of increasing importance, as he demonstrated, to the busy man. "Evil communications," indeed, may exert their power to "corrupt" in literature as well as in life, and the lecturer was but confirming the remark of educationists like Dr. Arnold when he referred to the sinister effect of such ill-chosen company as often finds its way into the home circle from the lending library. Idle reading is the fruitful source of idle thinking, which culminates in incapacity for thought, from which a further step in the intellectual down-grade is inability to sustain attention or even collapse of the reasoning power. "Fatty degeneration of the brain" is the definition Mr. Harrison draws from the language of pathology for the commonest results of idle reading, and there is no doubt a condition of the mental instrument which corresponds to the pathological state referred to. Mr. Harrison seeks a counter agent to the idle reading he deprecates in a sound choice of books, and a steady, intelligent mastery of their contents. The suggestion is a good one, but a better seems to us practicable. Let the busy man cultivate, or even create for himself, a subject of interest apart from that of his daily employment—a subject, be it scientific, or mechanical, or artistic, to which he can turn in his leisure hours for mental distraction and exhilaration. Let him pursue this systematically with or without the aid of others also interested in the subject, and it is astonishing how quickly his familiarity with it makes it a source of solace and relief amid other cares. Biography teems with instances of men who, as "busy" as Mr. Harrison's busiest man, have in this way found time to enrich the stores of science, of literature, of art—of knowledge, indeed, in every department. It is one of the mental occupations which are "twice blest," primarily as regards the individual, secondarily as regards the outside world. Resorted to in youth, it becomes the healthy distraction of middle life and old age, till it sometimes brings to him who practises it a reward in the present and a recognition from posterity which the formal business of his life may have failed to win.

THE PECULIAR PEOPLE AND THEIR TENETS.

AN interesting case was heard by Mr. Justice Hawkins at the Essex Assizes held at Chelmsford last week. William Cable, a member of the Peculiar People, residing at Rayleigh, was charged by the National Society for the Prevention of Cruelty to Children with having wilfully neglected certain of his children in a manner likely to cause them unnecessary suffering or injury to their health. It appears that in June and July last diphtheria was prevalent at Rayleigh, and, Cable's family being attacked, four of his children died within six weeks. One of the religious tenets of this sect being that medical advice should not be sought in case of illness, no medical man was called in to attend the patients. The question for the jury to decide was whether this was wilful neglect causing unnecessary suffering to the children. The facts were not disputed, and the prosecuting counsel acknowledged that Cable did not intend to act cruelly to his children and that he bore the reputation of being a most humane man. In addressing the jury the judge said that practically everybody had agreed to give the defendant the character of a man of great respectability, great humanity, and one extremely fond of his home and children. But if the circumstances of the case were such as would have made it imperative for the defendant to call in a medical man if he had not been a member of the Peculiar sect, then the fact of his being a member of that sect would not protect him from the obligation to do that which other persons would be obliged to do. But the jury would have to consider the case without taking into consideration the views of the Peculiar People; they must deal with it as if the defendant were an ordinary labourer. The jury, after a very short deliberation, acquitte the prisoner of wilful neglect, a verdict in which the learned judge entirely concurred. The result of this trial has been looked forward to with great interest by the coroners and

medical officers of health throughout the county, since this peculiar tenet is the cause of numerous otherwise unnecessary inquests, and on many occasions infectious diseases have been spread owing to persons of this sect who had charge of sufferers being ignorant as to the true nature of the illness. Diphtheria is regarded as simple sore-throat or mumps, scarlet fever as a "bilious attack" or German measles, and the medical officer to the Maldon rural district council, during a recent epidemic of typhoid fever, found one of these "people" suffering from this disease complicated with pneumonia, who was said to have "one of his usual attacks of bronchitis." As it is usually impossible to prove that the true nature of the disease is known to the sufferer or those in charge of him, prosecutions under the Notification of Infectious Diseases Act are futile, and such cases as the above may escape detection and serve as foci for epidemics. If it be legal to allow people to die without obtaining medical treatment, such a death should at least be illegal unless a medical man has been called in to ascertain during life the true nature of the disease. The Notification of Infectious Diseases Act undoubtedly requires amending, and a penalty should follow for neglect of notification when it can be proved that reasonable means have not been taken to ascertain the true nature of the disease. The Peculiar People are, no doubt, in their way a simple and God-fearing people, but this should be no excuse for permitting them to spread infectious diseases amongst the general community.

MR. HERBERT SPENCER ON LORD SALISBURY.

IN the *Nineteenth Century* for November Mr. Herbert Spencer takes Lord Salisbury to task for his address as President of the British Association for 1894. In that address, as our readers will remember, Lord Salisbury criticised unfavourably the doctrine of evolution, and especially the theory of natural selection. Mr. Spencer thinks the Premier confuses these two ideas and fails to recognise that even if the influence of natural selection could be disproved the doctrine of organic evolution would remain standing on other evidence. "Whether it were shown that natural selection is inoperative, or whether it were shown that though a partial cause it is inadequate to explain all the facts (the inheritance of functionally wrought modifications being a coöperative cause), or whether it were shown that no cause hitherto alleged is adequate—the general doctrine that organisms of all kinds have arisen by the continual superposing of modifications upon modifications would maintain its place, though it would not be fortified so strongly. Lord Salisbury, however, in common with the immense majority of men, assumes that the hypothesis of organic evolution must stand or fall with its alleged causal agencies." In reply to Lord Salisbury's objection that "no man or succession of men have ever observed the whole process [i.e., of natural selection] in any single case, and certainly no man has recorded the observation," Mr. Spencer points out that the alternative hypothesis—viz., special creation—is equally destitute of direct proof. "Supposing the two hypotheses—special creation and evolution by natural selection—are to be tested by the directly observed facts assigned in their support, then, if the hypothesis of evolution by natural selection is to be rejected because there are no directly observed facts which prove it, the hypothesis of special creation must be rejected for the same reason. Nobody has seen a species evolved and nobody has seen a species created." The fact is, that when once we have clearly realised what is meant by the theory of the evolution of species, the demand that anyone should have directly observed the process is an absurdity. Such an observation is *ex hypothesi* impossible. The case between the two rival hypotheses of evolution and special creation is, however, very different, according to Mr. Spencer, when we look at the indirect evidence. The more the earth's strata are examined the more they testify that organic forms have arisen by modifications upon modifications. It has been shown that the bird type is derived by intermediate forms from the reptile type. The four-toed Orohippus of the eocene strata leads by easily recognised gradations of Mesohippus, Miohippus, Protohippus, and Pliohippus to the modern horse. Fossils reveal a general law of great importance—viz., that early types of creatures in any class display the commonest or most general traits of structure, and that later types of the same class are more specialised. The facts of classification favour the evolutionary hypothesis. The relations of classes, sub-classes, cohorts, orders, genera, species, and varieties are intelligible only on the assumption of a common descent. The facts of the distribution of animals in space point in the same direction. In various regions there are alliances between the present fauna and the past fauna found fossil; though different, they are near akin. "The fact that in Australia, long cut off from the other continents, all the indigenous mammals are of the implacental type and that the fossil mammals found there are also exclusively implacental, illustrates these connexions very closely." Finally, there are the wonderful confirmations of evolution afforded by embryology. "Von Baer found that in its earliest stage every organism has the greatest number of characters in common with all other organisms in their earliest stages; that at a stage somewhat later its structure is like the structures displayed at corresponding phases by a less extensive multitude of organisms; that at each subsequent stage traits are acquired which successively distinguish the developing embryo from groups of embryos that it previously resembled, thus step by step diminishing the class of embryos which it still resembles; and that thus the class of similar forms is finally narrowed to the species of which it is a member." It is for opponents of evolution to suggest any explanation of these remarkable facts comparable in simplicity and probability to the doctrine of evolution. Mr. Spencer protests against Lord Salisbury's apparent assumption that evolution is concerned only with animals and plants, remarking that "a doctrine which alleges evolution for the animate and assumes creation of the inanimate world is absurd. Evolution, if alleged at all, must be alleged as coextensive with all existence, save that which is undergoing the reverse process of dissolution." The doctrine of evolution "has for its subject-matter the entire cosmic process, from nebular condensation down to the development of picture records into written language, or the formation of local dialects, and its general result is to show that all the minor transformations in their infinite varieties are parts of one vast transformation, and display throughout the same law and cause—that the infinite and the eternal energy has manifested itself everywhere and always in modes unlike in results but ever like in principle."

DEFECTIVE HEARING IN SCHOOL CHILDREN.

DR. WEHMER, in an admirable work on school hygiene recently published, expresses his conviction that while defects of vision among children in schools have attracted much attention of late, those of hearing have not received nearly so much as they deserve. Weil found 35 per cent. of the pupils in the schools in Stuttgart, and Moure 17 per cent. of those at Bordeaux more or less deaf in one or both ears. The degree of deafness is very easily determined by requiring the child to repeat words uttered at a measured distance in a quiet room, and unilateral deafness by closing one or other ear with the finger. Much will, of course, depend on the clearness of articulation

and the pitch, loudness, and volume of the speaker's voice; but Dr. Wehmer considers that words spoken in a man's ordinary conversational tone should be recognised without difficulty by anyone whose hearing is normal at a distance of fifteen to twenty metres—say, sixty feet. Any child whose hearing is defective or doubtful should be examined by a medical expert as to the state, not only of the ears, but also of the tonsils and naso-pharynx. Those suffering from chronic catarrhs or adenoid hypertrophies of the naso-pharynx may be recognised by their staring stupidly at the teacher while others follow the instruction intelligently, and their power of hearing varies with the weather. Their infirmity is often mistaken for mental deficiency or culpable inattention; and while diseases of the ear itself if neglected may lead to permanent and total deafness, or even to fatal meningitis, those of the naso-pharynx render the child specially susceptible to the infection of diphtheria, and in the opinion of some authorities tend to produce the enfeebled intellect which at first they only simulate. The sooner such cases are submitted to surgical treatment the better for the children, both physically and mentally. Such children are a drag on the work of a school, and even if the ultimate consequences to themselves are less grave than those we have mentioned, they are heavily handicapped through life, growing up into comparatively useless and unsuccessful members of society. The matter is one of really national importance as regards the future of the rising generation, and furnishes an argument in favour of the appointment by the school boards of medical inspectors in their several districts, men who should be competent to detect errors of accommodation and other defects of vision and to use the laryngoscope and rhinoscope, and familiar with the early diagnosis of infectious diseases and the essentials of practical sanitation, as well as with the methods of anthropometry. It is scarcely possible to overrate the scientific and social results that might be achieved by such systematic observations.

THE WATER-SUPPLY OF BRIGHTON.

FOR years past Brighton has held its own amongst the other large towns in the United Kingdom, and it will not be for the want of attention on the part of the corporation if the town does not continue to hold such a satisfactory position in the future. The *raison d'être* is, it is well known, to be found in its excellent sanitation and water-supplies. It is with regard to the latter that we wish to call attention at the present moment. By leaps and bounds Brighton is growing into a town of enormous size, and at no distant date another source of water-supply will be needed for it and the district within the corporation limits. Very wisely, the corporation have not waited till the want of an additional supply stares them in the face, they having on Thursday, the 7th inst., agreed to purchase the Shoreham and District Waterworks Company's undertaking. The source of this company's supply is a very large spring within a stone's-throw of the town of Shoreham, which is five miles only westward of Brighton. Simple everyday experiments made by Dr. Fuller of Shoreham led to the formation of the company in the year 1870. After a few years Dr. Fuller became chairman of the directors, which office he holds at the present time. For the first five years no dividend was paid at all, but from 1876 it has been a commercial success. In 1887 the full statutory dividend of 10 per cent. was paid, and this has been continued ever since, a feat due in a great measure to the admirable tact displayed by Dr. Fuller and his co-directors. The mere fact that a great town like Brighton has acquired the undertaking is more than sufficient proof that the water is of the very best and the supply abundant. Bearing in mind statements made in the House of Commons in 1878, it is a somewhat strange coincidence that Brighton has now acquired the Shoreham spring as a reserve source of supply. A private company applied for statutory powers to supply a portion of the Shoreham company's district. The Shoreham company naturally opposed this, and won the day. Dr. Fuller was a witness before the Select Committee on Private Bills, and in the course of a lengthy cross-examination by the counsel for the private company Dr. Fuller remarked that the spring was sufficient to supply the whole of Brighton. Questioned as to the abundance of the supply, the answers of Dr. Fuller led counsel to ask: "Do you draw your water from the sea, then?" "We draw our water from something which is equivalent to the sea," was Dr. Fuller's reply, "a large underground sea of fresh water." An eminent engineer at that time, also a witness for the Shoreham company, after examining the spring, said, "Well, there's enough here to supply Brighton." The total sum the council have agreed to pay for the undertaking is £56,700, and the directors have consented to receive this amount in Brighton Corporation Stock amounting to £47,250, representing at a quotation of 120 per cent. a cash equivalent of £56,700. In other words, the shareholders will receive exactly the same from the Corporation Stock as they are receiving now from the company. The cost to Brighton ratepayers will be nothing, inasmuch as the income of the company will pay the interest upon the purchase money. With its existing sources, added to which is the spring at Shoreham, Brighton should have no fear as regards its water-supply for years to come.

THE DISINFECTION OF PUBLIC CONVEYANCES

A CASE which is not without interest to the medical profession as a whole was heard at Westminster before Mr. Sheil in the early part of this week. A medical man was summoned by the driver of a hansom cab for the recovery of £1 for loss consequent upon his vehicle having to undergo disinfection in accordance with the provisions of the Public Health Act. The facts in connexion with the case appear to be as follows. A child was taken by the mother to the Chelsea and Brompton Dispensary, Sloane-square, and was seen by Mr. J. J. Marsh, who diagnosed diphtheria and filled in a notification form to that effect, at the same time telling the mother to take the child home at once and to leave the notification form at the Chelsea town hall on the way. At the woman's request Mr. Marsh instructed the porter of the institution to call a cab, and, without being informed from what the child was suffering, the cabman was told by the porter to drive his fare to the town-hall. Here the party encountered the officials of the Chelsea vestry, who forthwith, with commendable vigilance, took the number of the cab and instructed the cabman to return there after depositing his fare, inasmuch as the child was suffering from diphtheria and the cab would have to be detained for disinfection. It must be related here that a statement to the effect that the mother tendered the cabman his fare was not challenged. As a consequence of the detention of the cab the driver lost two days' work, and he elected to take proceedings against Mr. Marsh for compensation. Why he did this is not quite clear, save that he appears to have considered the gentleman in question best able to bear the brunt of the expense. Mr. Marsh fought the action on purely public grounds, submitting that it would be a serious thing for medical men generally if a kind action in having a cab called for a patient should render them liable to such charges as this. The magistrate, having heard the case, was naturally satisfied that Mr. Marsh was not liable, but out of pity for the cabman intimated that possibly the case might be one for the court to relieve; and it should be stated that Mr. Marsh, having obtained the decision, generously offered to compensate the cabman. Doubtless, therefore, the driver

will not suffer, but it appears to us that Section 70 of the Public Health (London) Act might have something to say in the matter, and it is on the whole to be regretted that either an ambulance was not sent for or the woman was not told the serious penalties which she incurred by riding with an infected child in a public conveyance. We wonder what conveyance was used on the journey to the dispensary. The difficulty in cases such as these is as to where an infected person is to be housed prior to the arrival of an ambulance.

ACCIDENT INSURANCE FOR WOMEN.

So long as woman led the comparatively inactive life which until recent years custom imposed upon her, the insurance against accident of females, except in special or rare cases, was not called for to any extent. To neglect the precaution was venial. But in these days of feminine activity, when the sight of a woman alighting from a moving omnibus or riding *à l'homme* along the crowded thoroughfares on a bicycle is common, it is not surprising that the National Accident Insurance Company should have added to their tables one relating to the accidents likely to befall the gentle sex. This table, which includes the zymotic diseases, provides for accidents resulting in death, permanent or temporary total disablement, and the loss of the various members of the body, a special table being provided for hazardous occupations. Time was when woman was content to be the tutelar deity of the household, but *nous avons changé tout cela*, the female spirit yearns for equality with the male; is ever, indeed, striving to eclipse him, and not without success in some directions. Under these circumstances women stand the same risks of accident as men, and their addition to the tables of an insurance company is a manifestation of the spirit of the times.

ADULTERATION OF DRUGS.

THREE druggists have been charged at the instance of the Islington Vestry, before Mr. Bros of the North London Police-court with selling unguentum hydrargyri not containing the full amount of mercury. The deficiency was in one case 66·2 per cent., in another 11·3 per cent., and in the third 13·3 per cent. In the first case, where the deficiency was so great, the druggist defended himself curiously. He said druggists were to use their discretion—that was the reason they pass examinations. Unguentum hydrargyri, according to him, is only used as a basis for other articles. Druggists as a rule sell the weak ointment, which in the older pharmacopœias was called unguentum hydrargyri mitius. In the third case the ointment supplied was a mixture composed partly of some on hand and partly of some got from a neighbour. This neighbour was in turn asked for the same ointment, and had to apply to a third neighbour, who it was said had procured it from a wholesale druggist. Mr. Harris, the medical officer of health, would not acknowledge that the ointment was but rarely supplied by druggists. He said surgeons frequently employed unguentum hydrargyri for adults where mercury could not be given internally. One of the defendants had learnt from Mr. Martindale that in 25,000 prescriptions it had been mentioned only thirteen times in the United Kingdom and thirty times in the colonies. In the first and the third cases Mr. Bros considered the druggists had given an ointment with less than the proper amount of mercury, and required them to pay the costs, 12*s*. The second druggist, or rather his assistant, had sent out for the preparation, and that was all he could do. The ointment was not of full strength, but it was no fault of his. Perhaps the magistrate was right in letting the druggists off easily. The latter do not seem to have acted dishonestly. The theory of discretion is not applicable here. The druggist should have supplied what was prescribed. There is but one unguentum hydrargyri in the Pharmacopœia, and a medical man's prescription covered the druggist's responsibility. In the other two instances the ointment was not of the full strength, and it is unsatisfactory that the real culprit has not been ascertained. Possibly the wholesale druggist was to blame. On the face of it he was so. But nothing is proved. It would be well for the sanitary authorities to give a little attention to their preparations as well as to those of retail druggists.

COLSTON DAY IN BRISTOL.

ON Nov. 13th the usual Colston anniversary was observed in Bristol. The celebration this year was of more than common interest owing to a statue of Colston being unveiled by the Mayor. The Colston Hall, the Colston Hospital Schools, the window in the Cathedral, and now the statue all serve to keep the memory of Bristol's greatest philanthropist before the citizens. In the evening the members of the various Colston societies held their annual dinner; the collection made afterwards for the various charities amounted to £3375, being in excess of the sum received last year.

SANITATION IN SUSSEX.

ON Oct. 22nd the quarterly meeting of the sanitary committee of the East Sussex district council was held, when Dr. Leonard Wilde, D.P.H., &c., was appointed consulting medical officer to the committee at a salary of £105 per annum and travelling expenses. The appointment is for one year. At a meeting of the council held on Nov. 12th the decision of the committee was confirmed. Mr. Henriques referred to the assistance which Mr. Edgar Crookshank had afforded the committee in their selection of a candidate. We are glad to see this recognition of Mr. Crookshank's help, more especially as it affords one more instance of how valuable it is for deliberative and executive bodies concerned with the well-being of the people to number a medical man among their members.

INFANTILE PALSIES.

IN a recent number of the *Neurologisches Centralblatt* there appeared an abstract of an interesting paper by Dr. Muratoff, the original of which was published in the *Deutsche Zeitschrift für Nervenheilkunde*. Six cases of diplegia in children were observed, in two of which death took place. In one of the two the clinical condition comprised idiocy, weakness of all four extremities, and spastic and athetoid movements, with contracture and atrophy of the right upper extremity. In the brain there was found after death widespread destruction of the central convolutions and the temporal region, while the frontal and occipital regions remained unaffected. In the cervical region of the cord there was atrophy of the cells of the anterior horns, especially on the right side, and there was descending degeneration in the right pyramidal tract in the dorsal and lumbar cord. The second case was that of a microcephalic idiot with complete paralysis of all four limbs. At the necropsy there was found atrophy of both central convolutions and of the paracentral lobule on both sides, and microscopical examination of these parts showed complete disappearance of the cells. There was also in the spinal cord a simple atrophy of the pyramidal tracts without degenerative changes. Whilst in the first case, besides the symptoms of paralysis, there was also evidence of gross irritation, due no doubt to the destructive inflammatory process, in the second case there was an obsolete inflammatory process, with consequent atrophy of the central convolutions and simple atrophy of the conducting fibres, the whole to be regarded as probably the result of a developmental

defect. Dr. Muratoff concludes that (1) in spite of the similarity of clinical appearances the various forms of diplegia in children may be the result of different pathological processes; (2) the congenital form is the result of meningeal hæmorrhage and consequent atrophy of the central convulsions (the secondary changes in the pyramidal tracts are probably simple, not inflammatory, but depending upon interference with development); (3) in acquired forms the secondary degeneration is probably the result of a destructive lesion; and (4) a sub-division of the various cases of diplegia is necessary, such a classification being required as will take account of physiological and pathological changes.

THE ORIGIN OF HOSPITALS.

A CORRESPONDENT writes:—"Lately in a local paper a discussion has been raised as to the date of the origin of hospitals, and correspondents have settled the point to their own satisfaction in more ways than one. As a matter of fact the point is involved in obscurity. It is doubtful whether before the Christian era there were hospitals such as existed after. The evidence in favour of the existence of establishments for the sick amongst the Greeks is small, although Suidas mentions νοσοκομεῖον (hospital); but as the word itself does not appear until the fourth century A.D. it does not add much weight to the contention that they were in vogue before Christianity, and it seems likely that the institutions before then more partook of the nature of convalescent homes. The Romans had a valetudinarium for sick soldiers, and there is no room for doubt that the Romans possessed a medical staff, as evidenced by monuments found in Britain. But, as a matter of fact, one of the first hospitals of which anything is really known was that founded by Gallus in Cæsarea 370–80 A.D., and about the same time one was built at Rome by Fabiola. The origin of hospitals as they are now is certainly monastic. As the monks were the pioneers and patrons of arts and sciences, so they were in the founding of institutions for the sick. Every monastery had its infirmary, as every monastery had its school. The first distinct record of a hospital in England is mentioned in the life of Lanfranc, Archbishop of Canterbury, who in 1080 founded one, a part of which was set apart for leprosy and the remainder for general diseases. The hospitals remained in the hands of the monks until the Reformation, when they went the way of the rest of the monastic establishments and passed for the most part into the hands of laymen, their revenues being taken away. It may be said that several of the existing London hospitals owe their foundation to the zeal of the monks, notably St. Bartholomew's and St. Thomas's."

THE PENALTY OF INSANITATION.

A FARMER named Henry Winstanley of Ravenhead Farm, near St. Helens, was summoned to the St. Helens Police-court on Nov. 12th for failing to furnish the authorities with the names and addresses of all his customers, as infectious disease had been attributed to milk supplied by him. The town clerk prosecuted, and the defendant was represented by his solicitor. This summons was withdrawn, as the defendant in the meantime had supplied the list requested; but there was another summons charging him with keeping swine in a cowshed used by him for keeping cows in. The medical officer of health had visited the premises and found pigs and cows kept in the same shippon, contrary to the provisions of the Milkshops Order. The premises generally were in a filthy condition, and that, coupled with the notifications, made it clear that in all probability typhoid fever was being spread by the defendant. The town clerk stated that under ordinary circumstances he should have asked the bench to mark their sense of the very serious character of the offence by imposing the maximum penalty, but since the previous Friday a much heavier penalty had fallen upon the man than the magistrates could have inflicted—he himself was suffering from typhoid fever. The bench, owing to the circumstances, allowed the summons to be withdrawn, the defendant's solicitor undertaking on his behalf that the offences should not be repeated. It is useless for us to enlarge on the enormity of the offences here charged, because it has been proved over and over again that the milk-supply is a common source of the diffusion of typhoid fever and scarlet fever. Cases similar to these do, however, show how necessary it is for sanitary authorities to jealously watch the supply of milk to towns and enforce by all the means in their power the law which enables them to punish those who wilfully or carelessly transgress the sanitary laws.

THE BLOOD IN CHRONIC DISEASES OF THE STOMACH.

AMONGST the several diagnostic criteria serving to differentiate chronic ulcer of the stomach from cancer of that viscus may perhaps be reckoned the results of examination of the blood, although there are cases of the former class which apparently exhibit as profound a degree of anæmic cachexia as does malignant disease. Dr. Blindermann[1] is, however, convinced that hæmatological examination suffices to establish a difference, and publishes the results of a certain number of observations he has made in each class of cases. He concludes that it is possible by this means to differentiate between cancer and other chronic diseases of the stomach, including chronic catarrh, ulcer, and gastrectasis, although he admits that in the case of ulcer some exceptions do occur. One main difference is that in the case of cancer the hæmoglobin diminishes progressively, whereas in ulcer the rapid loss in the amount ensuing on hæmatemesis is soon regained. The exceptions to this rule are to be found in those cases of gastric ulcer in which, as Rosenstein has shown, pernicious anæmia develops, and where there also occurs diminution in the number of red corpuscles as well as the appearance of poikilocytes, microcytes, and macrocytes. Chronic gastric catarrhs, with marked dilatation, cause no manifest change in the composition of the blood.

EXAMINATIONS IN ANATOMY.

PROFESSOR FAWCETT of University College, Bristol, has drawn attention in our issues of Oct. 19th and to-day to the uncertain results of the first and second examinations in anatomy at the Conjoint Examining Board in England. He reiterates the strictures which we and others have so frequently and so fruitlessly made in regard to these examinations. *Viva-voce* examinations can only be fairly carried out when the examiners know the result of the written examination and have a fair amount of time for testing the knowledge of the candidate. An absolute time limit of ten minutes is absurd and often inflicts a grievous injustice on a student who would have passed if more thoroughly examined. It is also detrimental to the public interest, for often a candidate with a plausible manner passes, when a little further examination would show that his knowledge was very superficial and insufficient for the daily work of the profession. In fact, in setting only a small number of questions and in limiting the *viva-voce*, regard is given to the convenience of the examiners rather than to fair play for the candidate. The only excuse for the system of the Conjoint Board is that it is found by experience that roughly speaking, the results are in accordance

[1] Wiener Medicinische Blätter, 1895, No. 44.

with the knowledge of the candidates. No system can be so perfect as to admit of no mistakes, but one which would almost seem to be deliberately devised for making them should be altered. At the University of London the examination in anatomy is much more severe and thorough, but is much fairer to the student. More questions are set, and the *viva-voce* is not limited. The examiners have before them the marks of each candidate and can give a longer or a shorter time to his *viva-voce* as they may deem necessary. They can thus as readily examine six students in an hour as if they were confined to a ten minutes' time limit for everyone. Professor Fawcett urges an alteration in the examination in elementary anatomy. We agree with him that as now conducted it is useless and proves a hindrance rather than an assistance to the student. The amount of knowledge which is required is insufficient to occupy the student during his first winter session, and in consequence he too frequently wastes much of his time. We should prefer the abolition of this examination to its improvement; but if it be continued it requires much alteration, and on the lines suggested by Professor Fawcett. We understand that this abolition is contemplated by the Royal Colleges, and if this is decided on the subjects of study during the first year will require further alteration.

THE FRIEND OF HUMANITY—NEW VERSION.

WE have received from a correspondent to whom we give our thanks a copy of a lithographed letter sent out to publishers, signed by Edward Curtice, Managing Director of the Newspaper Exchange, &c., of which we append a copy:—

To the Editor of ——————.

SIR,—Dr. Allinson, the well-known Hygienic Physician, is desirous of spreading the knowledge of the laws of health and his books. He proposes that you put in your columns each issue (weekly) *the enclosed advertisement*. In return for this he will supply you with *a popular medical article every week*. We need not enlarge on the benefits your paper will receive from this regular contribution from Dr. Allinson's well-known pen. You will find it will make old readers cling to you and also bring in a new set. The people are thirsting for this knowledge. It is well known to the Dr. that one paper—to which he has been attached for ten years—has at least 10,000 who take the paper for his articles alone. The knowledge imparted is in popular language and understood by ordinary readers, all medical terms being rendered into plain English.

We are entering into this arrangement with newspapers. ONE *in each district*. We therefore suggest you should secure our offer at once. It is only made by the Dr. because he wishes to educate the people and to save unnecessary suffering and premature deaths.

If agreeable, please sign the accompanying form and return it to us and oblige,

Yours truly, on behalf of the Union,
EDWARD CURTICE, Managing Director.

This is the "form" referred to:—

To the Managing Director of the
Newspaper Exchange and Advertisement Clearing House.
(Mr. Edward Curtice.) 359, Strand, London, W.C.

SIR,—On the undertaking you have given, the undersigned agree to insert (weekly) the advertisement of Dr. Allinson's books free of charge—the understanding being that the Doctor undertakes to supply a popular medical article for insertion in the ..... weekly. A fortnight's notice, in writing, on either side, will bring this arrangement to a close if desired.

Name .....
Title and address of newspaper .....
.....
Date ..... 189 . .....

"Dr." Allinson, with the candour and modesty so characteristic of true genius, does not attempt to disguise the commercial side of his nature. He is "desirous of spreading the knowledge of the laws of health *and his books*" (these italics are ours). We observe, though, that further on the agent says the offer "is only made by the doctor because he wishes to ..... save unnecessary suffering and premature deaths." The picture of the old readers clinging to the editor of the paper selected is eminently touching, and calculated to appeal to that large class whose ideas of sentiment and religion centre in cheap German lithographs and the pictures of the late John Martin, but it would be somewhat embarrassing. Fancy the editor of the "paper well known to the Dr." with 10,000 old readers clinging to him. It would make an admirable statuary group as a pendant to the Laocoon. "All medical terms are rendered into plain English." This is as well, for even the educated medical man would be puzzled by such terms as "Feton," "Fedicull," and "Peorlagis." "Medical Essays" (the contents bill of one volume of which we append) is, it will be seen, a comprehensive work. There are five volumes, and one volume costs 1*s.* 2*d.* It is to the advertisement of the five volumes that the lithographed letter refers:

MEDICAL ESSAYS Vol. IV.
For Postal Order for 1s. 2d.
It contains Articles on Hardening, Work and Over-work, Sugar and its Abuse, Milk as Food, The Tomato, Poultices, Quinine, Against the Knife, Arsenical Poisoning, Tonics, Against Stimulants in Disease, About Swallowing Pins and other Articles, Also Cure of Sunstroke, Dog Bites, Pains in the Back, Fediculi or Lice, Chickenpox, Synovitis or Inflammation of the Joints, Tonsilitis or Quinsy, Herpes (Tetter or Shingles), Erysipelas, Ulcer of the Stomach, Epidemic Influenza, Sciatica, Peorlagis or English Leprosy, &c.

The correspondent who sends us these interesting documents says: "It will show you how things are done." It does.

THE DANGERS OF SERVICE SUPPLIES.

THE past twelve months, as we have more than once pointed out,[1] have been somewhat remarkable in furnishing practical evidence of the unpleasant and serious consequences which may and do arise from defects in connexion with all three public service supplies—gas, water, and electricity. The risks of accident from water-supply are of course totally different from those of gas and electricity. True, a leakage of water may be sufficiently large to cause damage to property, but it is seldom likely to lead to personal injury. On the other hand, an escape of gas may be undetected for some time; and it only requires, as was exemplified in the street explosions which happened in the electric main boxes about this time last year, a discharge of electricity—i.e., the production of a spark—to determine an explosion. At an inquiry into the causes of these explosions the gas officials said they were due to the overheating of the electric mains, which produced inflammable gas from the insulating material and afterwards an explosion. The electrical companies declared it to be due to defects in the gas mains. There was no question of electricity having any share in the disastrous gas explosion which occurred in the Strand a few weeks ago. In this case it would appear that the water service was the seat of the mischief. From the evidence of expert witnesses at the inquest on the body of fireman Sprague last Monday it seems clear that the soil under the gas main had been washed away by a leakage of water, so that the gas main after a time formed a bridge over a gap—a condition of things which must have exposed it to severe strain, especially at the joints. The jury could not attribute blame or negligence to any person, and their verdict was "Accidental death." Service supplies are a necessity of modern existence which are bound to involve risks of a degree in accordance with the nature of the thing supplied. The origin of the mischief in the instances just quoted was the same, and may be summed up in one word—leakage. It is obviously desirable, therefore, that every conceivable precaution should be made to obviate such defects, but we imagine that those we trust for a supply of water, electricity, or gas would, in their own interests, take every precaution to avoid leakage and to prevent waste.

EXCREMENT CONSERVATION AND ENTERIC FEVER IN SHEFFIELD.

Dr. HARVEY LITTLEJOHN, the medical officer of health of Sheffield, has recently presented to the health committee

[1] THE LANCET, Nov. 2nd, 1895.

of the City Council a special report upon the prevalence of enteric fever in the district. Apparently there has been some misunderstanding upon the subject, and the committee have felt it desirable to publish Dr. Littlejohn's report. Enteric fever, it is pointed out, is unfortunately always with the people of Sheffield, and since the adoption of notification in November, 1890, no month has passed without some cases being reported. Dr. Littlejohn points out that this disease has its autumnal rise in Sheffield as elsewhere, and that this rise may in some cases be early in the autumn, in others late; and that, therefore, a rise such as is at present being experienced is not altogether an unexpected event. As an illustration of the point in question the notification returns for each month of the last five years are published in the report, the total annual figures being as follows: 354, 197, 452, 347, and 382 (up to Nov. 14th, 1895). Having thus explained to the public some points in the natural history of enteric fever, Dr. Littlejohn rightly observes that the fact of this autumnal prevalence is no argument against every endeavour being made to limit the spread of the disease in Sheffield, and he then passes on to consider the causes of its incidence on the district. Milk and water as factors in the Sheffield causation are exonerated, and Dr. Littlejohn is only able to offer one explanation of the prevalence of the disease, an explanation which he has frequently urged before—i.e., the present system of refuse and excrement disposal. The offensive and insanitary condition of the privy-middens, which fosters the accumulation of filth and tends to the pollution of the soil, is, Dr. Littlejohn considers, the chief factor in the spread of enteric fever in Sheffield. In his annual report for 1893 he went fully into the question of the connexion between privy-middens and enteric fever, and he showed the frequency with which cases recurred in certain parts of the town and also in yards with privy-middens used in common, and he now states that subsequent experience has confirmed the conclusion he then formed. The risk that these privy-middens involves form, it is pointed out, a strong additional reason for the removal of cases of enteric fever to hospital, and in this connexion reference is made to the increased chances of recovery which patients isolated in hospital possess as compared with those treated at home. We trust that the Sheffield city council will not fail to take action on Dr. Littlejohn's report.

A MEETING of the Council of the Metropolitan Hospital Sunday Fund will be held at the Mansion House on Monday, 25th inst., at 3 P.M. The principal business will be:—To determine the report of the Council for the year 1895 and to order its publication; to revise the list of the Council for 1896; to order the convening of the next annual general meeting of constituents, and to consider what day of 1896 shall be recommended to the constituents for next Hospital Sunday.

HIS ROYAL HIGHNESS THE DUKE OF CAMBRIDGE presided at a dinner in aid of the Building Fund of the Royal Hospital, Richmond, on Monday last, at the Star and Garter Hotel, Richmond Hill. £1500 being required to complete the extensions, Mr. George C. Rowland, the secretary, submitted to His Royal Highness a list of donations amounting to £1000, whereupon Mr. Andrew Pears rose and offered the remaining sum of £500.

WE are informed by the secretary of the New Decimal Association that the metric system will be introduced into the new edition of the British Pharmacopœia. This is an important advance in the direction of the general adoption of metric weights and measures in this country, which step, it will be remembered, was recently recommended by a Select Committee of the House of Commons.

IN furtherance of a decision of the council of the Royal Medical and Chirurgical Society to devote one or more evenings in each session to a discussion of some subject of special interest, it has been arranged to hold a discussion next Tuesday upon the Possibilities as to Latency of Parasitic Germs or Specific Poisons in Animal Tissues, as in Hydrophobia, Erysipelas, Syphilis, Leprosy, Ringworm, Tuberculosis, &c. The President, Mr. Hutchinson, will open and define the scope and aims of the discussion, Dr. Washbourn will introduce the Bacteriological Aspect of Latency, Dr. Kingston Fowler will speak on Tuberculosis, Dr. Abraham on Leprosy, and Mr. Ernest Lane on Syphilis. It is anticipated that a discussion of much practical interest will follow.

THE deputation of the delegates of the institutions interested in the formation of a new Teaching University for London will be received by the Duke of Devonshire, Lord President of the Council, on Thursday, Nov. 28th, at 12 noon.

MR. ARTHUR DACRE, the well-known actor, whose death under very sad circumstances has been recently reported, was at one time a practising member of the medical profession.

THE annual dinner of the Harveian Society of London will be held at the Café Monico on Thursday, Nov. 28th, when the President, Sir John Williams, Bart., will be in the chair.

DR. JAMES GEMMELL, Dunoon, has been appointed an Honorary Sheriff-substitute of Argyllshire.

THE CLIMATE OF ASHANTI.

(BY OUR SPECIAL WAR CORRESPONDENT.)

As we are just now entering upon a new little war in Ashanti, and as the operations connected therewith are to be carried out at, or at any rate adjacent to, the coast-line of the Bight of Benin, between the parallels of 6 and 8 N. lat., long. 0 E., and therefore not far removed from the equator, it will be just as well to remind the readers of THE LANCET of a few peculiarities of the climatic conditions under which our European officers and men will be called upon to live, and possibly fight against, the warriors of the defiant African chieftain.

Now to say that the coast-line of this Bight is the "White Man's Grave" is as exaggerated and erroneous as to affirm that in this expedition little or no risk whatever to health or life is involved. A great deal must depend upon circumstances and how far precautionary measures are taken to prevent and check diseases in the pestilential regions. On the West Coast of Africa there are two distinct seasons—a wet and dry one. The former commences in April and lasts until the end of October, when the latter (the dry season) sets in. During June and July the rains are continuous and very heavy, accompanied by thunderstorms and violent tornadoes, the mean temperature at this season being 80° F. in the shade, and that of the water 79°. At the commencement of the dry or summer season the rains gradually abate and the weather is fine during the greater portion of the day; but dense, heavy fogs are experienced in the mornings and evenings, the temperature then rising to a mean of 82° in the shade, while that of the water will nearly touch the same point. One curious fact in connexion with this subject is that the temperature of shallow and deep water varies considerably—i.e., the temperature of the sea in shoal water will be found to be only 75·5°, while an instrument plunged into it a few miles out will register as high as 81°, showing a difference of 5·5° between them. The specific gravity of the sea at a depth of about three fathoms has been found to be about 1002. It is impossible now to go deeply into the subject of diseases prevalent in these low latitudes, but I may say that

coast fever, intermittent fever, colic, and dysentery are sure to be encountered.

For an illustration of the ordinary coast fever I subjoin a typical case taken from my note-books and written during service upon the coast some years previously:—

1 P.M. Nov. 6th: A seaman aged thirty years, of stout muscular form and phlegmatic temperament, complains of headache, dorsal pain, heat of stomach, nausea, with fulness in gastric region. Countenance anxious; tongue moist; pulse small, 84. States he has felt bad for a day or two. Temperature 102° F. 9 P.M.: Diaphoresis general over body, after medicine prescribed; bowels opened, headache relieved; pulse softer, less frequent; temperature 101°.

Following morning: Symptoms the same, tongue dry in centre, moist at edges, but he complains of pain in legs; pulse 80, soft. 9 P.M.: Rigors, with heat of skin; says he is very thirsty; restless in bed; slight strangury.

Next day, 9 A.M.: Now complains of great pain at back of head; pulse 80, soft and regular; stools dark and watery. Asks for food and has taken some tea. 9 P.M.: Idem.

Following morning, 9 A.M.: Very uneasy during past night; is oppressed; countenance pallid; tongue softer and cleaner; bowels open; temperature 102°. 10 P.M.: Countenance still more palid, but otherwise the same; urine very high coloured.

Next day, 9 A.M.: More fever and incoherent; does not feel any pain; pulse soft, 84; temperature 102°. A yellowness of both conjunctivæ has set in; very restless; temperature 104°.

From this date to the 17th, or twelve days from date of seizure, he gradually became worse, the pulse rising to 110°; the tongue was loaded, but moist; while his countenance assumed the most cadaverous hue. He died in low delirium.

From the experience gained by medical officers who know the coast well, and whose testimony can be confidently trusted, it may be inferred that it will be rather late in the day to try to cure patients out there when disease in the shape of dysentery and fever has fairly got the victims in its grip. Our professional motto ought rather to be "Semper paratus," recognising the truth of the old adage that "Prevention is better than cure." Many of the surgeons who have served on the West African Coast have learnt to their cost how prolonged and how doubtful the issue of the case is whilst a patient remains exposed to the malarial influence of the locality where he or she has contracted the disease, and how futile medicinal treatment proves in arresting the progress of the complaint. They have felt convinced at last that nothing short of a speedy removal of the patient from the coast to be placed under the invigorating influence of the south-east trade-winds at sea will ever have any effect in checking or curing the depressing ailments of those who unhappily have been attacked by the baneful climate's scourge.

If the various diseases prove so refractory to medicinal treatment, are they preventable?—that is the question which now confronts us. To a certain extent they are, and measures should therefore be taken accordingly. Some few years ago the loss of health, or even life, amongst our sailors and soldiers serving in Western Africa was out of all proportion compared with that of those serving on other stations, but, happily, conditions then existing do not now obtain. The water, food, and clothing served out to our troops are much better than they were, whilst the adoption of greater cleanliness, to say nothing of the free use of modern antiseptics, has gone a great way to ward off diseases which have decimated regiments in the past. A fairly liberal supply of fresh, pure water is always essential for the well-being of any service corps, and should be obtainable even if a distilling apparatus have to be requisitioned to provide it. Polluted water stored in casks which were left standing on deck under a blazing tropical sun did its work sooner or later in those days; and water perhaps eagerly drunk from a pestilential swamp without restraint or remonstrance from an officer by some thirsty soul was formerly a potent source of mischief, originating dysentery, the *bête noire* of this much-dreaded Bight.

Now as regards the food to be served out to the men doubtless it will be, as it was in our late Soudan campaign, excellent in quality and ample in quantity, but whilst inwardly blessing our stars that the days of weevily biscuits and tainted meat and foul water have for ever disappeared, we may dismiss the subject of food from further notice by simply reminding those who do go out that they may at times have even too much of a good thing, and by too hearty a meal of excellent meat bring on a complaint they, by eating less animal food and more vegetables or ripe fruit, might easily avoid.

The subject of dress is one that needs special notice and consideration, and it should always be as light and as easy-fitting as possible. What has to be guarded against in Africa is a sudden chill, in view of the fogs and mists that are ahead of us. The present clothing of our troops marks a distinct advance upon what it used to be. No longer are our men required to march under a blazing tropical sun with tightly buttoned-up tunics and stiff stand-up stocks compressing the venous circulation and placing the wearers in the most favourable condition for courting apoplexy or sunstroke. The marches in any coming attack will probably be undertaken between the hours of 3 and 9 A.M., after the men have partaken of an early cupful of coffee or cocoa and a mouthful or two of good biscuit. Then, too, at the midday halt, unless actually in the presence of the enemy, they may possibly be permitted to loosen their clothing, so as to give their chests a freer expansion, or even be allowed to enjoy the comforts of a brief siesta during the heat of the tropical midday sun. That will be all very well; but it should ever be remembered that as soon as the sun wanes the fog sets in, and a distinct chilliness creeps over nature and must be guarded against at all costs. Now is the time for flannels, and they ought to be put on if disease is to be avoided. The cool evening air is very refreshing, no doubt, but it is laden with mischief, as every African traveller knows. With a liberal supply of good water, avoidance of excess in eating as well as in drinking, and with great care on the part of the men not to expose their overheated bodies to any sudden chill, there is, I think, no reason why this expedition, so well equipped as regards medical officers and their requirements, should not return little the worse for campaigning in Ashanti-land.

A TEACHING UNIVERSITY FOR LONDON.

ON Wednesday, Nov. 20th, a general meeting of the teachers in the medical schools of London was held at the Examination Hall, Victoria Embankment, to consider a resolution pressing the Government to appoint a Statutory Commission to deal with the recommendation of the Gresham University Commissioners. The meeting may fairly be said to have represented, as Dr. Norman Moore happily suggested, the medical faculty of any future university in London, and consisted of a representative gathering of both experienced and quite young teachers, together with several ladies. At the commencement of the proceedings it seemed as if the members of the meeting were not altogether in harmony, for after the first resolution, subsequently unanimously agreed to, had been moved—

"That the Government be requested to introduce, at an early date, a Bill similar to Lord Playfair's London University Commission Bill, 1895, appointing a Statutory Commission to carry out the recommendations of Lord Cowper's Commission; but with an added clause giving (in accordance with precedent Acts of similar tenor) to all institutions or persons directly affected by any statute or ordinance proposed by the Statutory Commission a right of appeal to the Privy Council for the disallowance or alteration thereof, previous to such ordinance being laid before Parliament for confirmation"—

Dr. Isambard Owen pointed out that whilst the delegates of the medical schools had at their last meeting agreed to a resolution pressing the Government to appoint a statutory commission to "deal with" the recommendations of the Gresham University Commissioners, these words had only been inserted in the invitation, and that in the resolution before the meeting the words "carry out" had been substituted for "deal with." The resolution and the invitation were not in accord, for the one meant, and was intended to mean, much more than the other. Professor Curnow stated that all the signatures from King's College had been obtained under the idea that the wider signification was intended, and that this was indicated by those who had signed their approval. Professor Ramsay of University College, who said that he was largely responsible for the wording of the resolution, expressly stated that the objects aimed at by Dr. Owen and Professor Curnow were quite appreciated by the framers of the resolution, and were met by the phrase "similar to Lord Playfair's London University Commission Bill, 1895," and on

this explanation the protest was withdrawn. The following formal resolutions, on the motions of Dr. F. Payne and Dr. Mitchell Bruce, respectively, were then passed:—

"That all teachers be asked to sign the preceding resolution, as 'approved' or 'not approved,' and that the chairman be requested to forward a copy of the resolution, with the signatures obtained, to the Lord President of the Council, and other copies of the resolution to the Prime Minister and the President of the Council of Education."

"That the appointed delegates of the medical schools of London be requested to attend, with the representatives of other institutions concerned, a deputation to the Lord President of the Council, and to convey to him the wishes of this meeting as expressed in the first resolution."

A vote of thanks to the Committee of Management of the Conjoint Board for England for the use of the hall, and the usual courtesies to the chairman terminated the proceedings.

The occasion is noteworthy, as it is the first meeting of medical teachers in London which can be called a representative one, and we are glad that a unanimous resolution was passed. However much we may differ as to methods, we cordially hope that this meeting will prove an efficient stimulus in the renewed agitation on behalf of fair degrees for London medical students.

LEGISLATION FOR HABITUAL DRUNKARDS.

DEPUTATION TO THE HOME SECRETARY.

ON Friday, the 15th inst., the Home Secretary was waited upon by a deputation to urge the need for amending the law relating to habitual drunkards.

Dr. Norman Kerr, President of the Society for the Study of Inebriety, in introducing the deputation, announced the receipt of letters, approving of its object and expressing regret for their unavoidable absence, from the Duke of Westminster, Sir Richard Quain (President of the General Medical Council), Sir William Broadbent, and Dr. Long Fox (ex-President of the British Medical Association); also from the following members of Parliament: Messrs. Lees Knowles, Edmund Boulnois, and W. Johnston.

Dr. Kerr said that the solid mass of habitual drunkards, on which efforts of legislation, philanthropy, and religion had made little impression, with the increasing proportion of diseased inebriates, especially female, constituted a menace to public order. Regarding police-court inebriate offenders, it was now generally agreed that the existing procedure was a miserable failure, and neither deterred nor reformed them. Scientific students of the subject held that there was a physical as well as a moral aspect of inebriety, while the curative treatment of habitual drunkards had been recommended by no less than six State reports. Objection had been raised, on the ground of expense, to any alteration of the present system, but the money spent on the present system of imprisonment was worse than wasted. As to the non-criminal habitual drunkards, the existing Acts had done some good, but they required certain amendments. At present the habitual drunkard had to make a declaration before two justices before he could be admitted to a curative retreat. It was difficult to get the male, and still more difficult to get the female, inebriate to face such an ordeal, and one justice might be less formidable than two, or, he suggested, the declaration might be made, as in America, before a statutory commissioner, and entrance to such retreats should be facilitated. The term habitual drunkard should be so extended as to apply to persons addicted to the excessive habitual use of such narcotics as morphine, chloral, and cocaine, alcoholic drunkenness being only one form of inebriety. Another important defect of the existing Acts was that they only applied to those who could afford to pay. There were a few homes for inebriate women supported by philanthropy, but none for poor inebriate men. Provision for the curative treatment of poor inebriates of both sexes was required. As to the objection that it would be a new departure in English jurisprudence to subject to compulsory seclusion and curative treatment inebriates who had not broken the law, such an objection was fallacious, seeing that existing laws authorised analogous treatment of insanity, of which disease inebriety was practically a form. Provision could be made against any possible abuse of the power suggested, although no abuse of it had occurred in countries where it existed. Medical men did not desire to administer the proposed law, but to act under judicial authority and support the liberty of the subject.

Cardinal Vaughan said that further power was required to commit habitual drunkards to homes, where some 8 or 9 per cent. had been cured.

The Rev. Canon Duckworth, representing the Homes for Inebriates' Association, advocated fresh legislation in the direction indicated, maintaining that it would not be in advance of public opinion. Those for whom he spoke were as zealous for the liberty of the subject as anyone, but could not see why the liberty of the inveterate sot should be more respected than the welfare and liberty of his family.

Sir W. Charley, Q.C., suggested the restoration of the compulsory clauses of the Bill of 1877, the voluntary clauses of which had become law, with the result that patients who could pay had been treated in homes, the cures being more like 30 per cent. than the 8 or 9 per cent. mentioned by Cardinal Vaughan. As to the "liberty of the subject," where was it under the existing system in such a case as that of Jane Cakebread, who had been committed nearly 300 times? Magistrates should have the option of sending such cases to homes instead of to prisons.

Dr. Danford Thomas, coroner, pleaded for the proposed changes on behalf of the poor, he being a daily witness of the misery caused among them by habitual drunkards. During an experience of twenty years as coroner not a day had passed but he had held inquiry into a death due directly or indirectly to drunkenness. Nearly all the existing homes for inebriates were beyond the means of poor people, and the few that existed for poor women would not suffice to accommodate one case in a thousand requiring treatment. It was no more an interference with the liberty of the subject to place inebriates under compulsory treatment than to send cases of infectious diseases to hospitals. The cost would be covered by the saving the change would effect in the present outlay upon inebriates in workhouses, prisons, &c.

Mr. C. J. Maddison, Reformatory and Refuge Union, concurred.

The Home Secretary (Sir Matthew White Ridley), in reply, said that it did not require such an influential deputation to convince him of the importance of the question, but the difficulty of dealing with the non-criminal habitual drunkard was very great, as was shown by the reception with which the carefully drawn Bill of his predecessor in office had met. As to the analogy between the treatment of lunatics and the proposed treatment of inebriates, the former might soon recover and could be released, while it took, as he understood, twelve months or more to cure inebriates. With regard to the liberty of the subject and the remark that victims of infectious diseases were sent to hospital, he held that inebriety, although bad, was not so fatal to the community as infectious disease; but he could not ignore the reports of the committees to which reference had been made, and it would be of the greatest importance to the country if he could extend the system of curative treatment while safeguarding the liberty of the subject. He understood that some 6000 female inebriates were at present imprisoned. He quite agreed that something should be done in the case of criminal inebriates, and that it would be a saving to the country to cure them. Some of the proposals of Mr. Asquith's Bill might serve as a basis for tentative legislation. Regarding the difficult problem of the non-criminal inebriates, he would look into it and would be glad to see cured people who were a curse to society, and he favoured tentative efforts rather than heroic legislation.

Dr. Norman Kerr having thanked the right hon. baronet, the proceedings terminated.

THE ASSOCIATION OF FELLOWS OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

A MEETING of the committee of the Association of Fellows of the Royal College of Surgeons of England was held at 5.30 P.M. on Nov. 13th, at 25, Grosvenor-street, W. Mr. Holmes, Vice-President, occupied the chair, in the unavoidable absence of the President, Mr. George Pollock. The minutes of the last meeting were read and confirmed. The honorary secretary (Mr. Percy Dunn) reported that, as it had been found impossible to summon the members of the Association for the annual general meeting as arranged at the

previous meeting of the committee, it had become necessary to fix a later date, and for that purpose, as well as for the preparation of the agenda to be submitted to the members, he had called the committee together. After some discussion it was agreed that a meeting of the committee should be called for Dec. 4th, and that the annual meeting should be definitely fixed for Dec. 11th, 1895.

A letter was read from Major-General Graham, secretary of the Civil Rights' Defence Committee, asking the association to appoint a representative to act on his committee, and requesting the committee of the association to receive a deputation from the Civil Rights' Defence Committee. A letter was also read from Mr. R. B. Anderson in support of the foregoing application from Major-General Graham, and containing a short statement of the main facts of his case. A resolution was passed unanimously agreeing to receive the deputation aforesaid, and the honorary secretary was instructed to write to Major-General Graham to this effect, and at the same time to state that the committee would be prepared to receive the deputation at 5.30 P.M. on Dec. 4th, at 25, Grosvenor-street.

Mr. Anderson having expressed to the honorary secretary a desire to join the association, he was proposed, seconded, and unanimously elected a member of the association. After some discussion upon Mr. Anderson's case the following resolution was agreed to: "That the committee of the Association of Fellows beg to express their warm appreciation of the action taken by the Council of the Royal College of Surgeons as representing the College in the matter of Mr. Anderson's attempt to vindicate his legal rights as a Fellow of the College. They sympathise entirely with Mr. Anderson, and intend to bring his case before the association with a view to appoint a delegate to act on their behalf on the Civil Rights' Defence Committee." The honorary secretary was instructed to forward a copy of this resolution to the secretary of the College for the purpose of its being laid before the Council at their next meeting.

With reference to the appointment of a representative of the association on the Civil Rights' Defence Committee it was decided that, as this would be a new departure, it would be advisable to defer the consideration of the subject until the annual general meeting of the association on the 11th prox.

This concluded the business of the meeting, and the committee adjourned.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF INSPECTORS OF THE MEDICAL DEPARTMENT OF THE LOCAL GOVERNMENT BOARD.

On Enteric Fever at Widnes, by Dr. R. BRUCE LOW.[1]—This report, which was compiled some months ago, deals with a sustained prevalence of enteric fever in the borough of Widnes. The deaths from fever for the three years ending with 1894 were 26, 32, and 24, the population being somewhat over 30,000. There occurred also during the same years the following deaths from diarrhœa and English cholera—viz., 18, 48, and 15 respectively. And, again, in the five years ending 1894, during which time there was notification of infectious diseases in the borough, there occurred 587 attacks of continued fever, 566 being returned as "enteric" or "typhoid"; there was also a tendency to increase at each autumnal season. The different parts of the borough suffered unequally, the ward known as West Bank, which is not the most densely populated, having the highest fever attack rate. The water-supply for the borough seemed excellent as regards its source, and well cared for in its distribution; the question of milk as a vehicle of infection did not arise; neither was there any evidence that sewer air had had any real share in the distribution of the disease. But when we read Dr. Low's description of the means of excrement disposal in the borough we find ample justification for the belief that this excremental disease was provided with just the means which it requires for its propagation and distribution. It is unnecessary for us to describe the midden-privy with which the bulk of the Widnes houses is provided. The diagrams attached to Dr. Low's report suffice to show not only, as he says, that "it has nothing whatever to recommend it," but that it is altogether faulty and opposed in its construction to every sanitary principle. Oddly enough, it is locally called the "modern convenience"; but it has nothing modern about it, unless, indeed, it is the production of ignorance during comparatively recent years. "In a word," writes Dr. Low, "the air round the dwellings in Widnes is habitually fouled by emanations from collections of human filth stored close to the houses under very unfavourable conditions, and the tainted atmosphere that is breathed by the inhabitants cannot fail to have an injurious effect upon them." The truth is that owing to the filthy contrivances in question Widnes was found to possess precisely the conditions such as are known everywhere and, we had hoped, by everybody "to greatly favour the diffusion of enteric fever." Happily, we learn that this system is condemned by the sanitary officials, and that efforts have for some time past been made to get rid of it. It has probably been an expensive burden thrown on Widnes, for it has had an important share in producing one of the most costly and wasteful of diseases—one that attacks the bread-winners and young adults during the period of life which is most remunerative, and it has cost the people many valuable lives. We can only hope that this lesson has now been fully learnt; but it is somewhat disheartening to find so often that English people have not yet grasped the simple fact that to accumulate large quantities of excremental filth close to houses, where it lies decomposing and fouling the air that has to be breathed, is utterly opposed, not only to decency, but also to public health.

[1] Eyre and Spottiswoode, East Harding-street, London, E.C.; John Menzies and Co., Edinburgh and Glasgow; Hodges, Figgis, and Co., Dublin. 1895. Price 6d.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Manchester Urban Sanitary District.—Dr. James Niven has issued his first annual report as to the health of Greater Manchester. The report relates to the year 1894, and a perusal of it is sufficient to show that the health of the largest provincial city in England is in safe keeping, and that its statistics will be turned to excellent account. The marriage-rate of Manchester has gradually declined from 24·2 per 1000 in 1871 to 16·0 in 1893, while the birth-rate has been reduced from 40·0 per 1000 in 1876 to 31·8 in 1894. Dr. Niven dwells fully in his report upon the effect these diminutions may be held to have upon the mortality-rates. The general death-rate for 1894 was but 19·8 per 1000—i.e., 3 per 1000 less than in any year since 1871. The reduction of the death-rate was more marked in the township of Manchester than in either the north or south division of the city, a fact which Dr. Niven thinks may be due in some degree to the improvement of dwelling-houses in the older parts of the city. The reduction in infantile mortality during 1894 was very remarkable, and the reduced general death-rate is due in no small degree to the diminished mortality from summer diarrhœa. The infantile mortality in 1894 was but 158·5 per 1000 births, as compared with rates of 191·7, 178·2, and 201·3 in the preceding three years. The chances of survival in Manchester of legitimate and illegitimate children is shown in the annexed table:—

Percentage of illegitimate to total births.		Proportion of deaths under one year per 1000 births.		
		Total.	Legitimate.	Illegitimate.
1891	4·23	192	184	375
1892	4·10	178	170	367
1893	3·72	201	190	498
1894	4·42	159	150	338

In connexion with the general death-rate of Manchester it is interesting to note that a far higher proportion of deaths occurred in public institutions during 1894 than ever before, and this increased tendency to resort to institutions, where care and treatment are better than at home, may have a material effect in the diminution of the general death-rate of Manchester. On comparing the mortalities of the different divisions of the city it is found that Manchester township exceeds that of South Manchester, which in its turn exceeds that of North Manchester. Although in these differences there is a general relation

between a high density of population and a high death-rate, Dr. Niven, by a very thorough analysis of the mortality of the several districts in the city, shows clearly that there are other local factors which in large part override that of density. It is this part of Dr. Niven's report which is especially worthy of careful perusal. The Manchester figures in regard to enteric fever show that this disease is not more prevalent in those districts where the summer diarrhœa incidence is high. The causes of enteric fever are, Dr. Niven considers, much more complex than those of diarrhœa. In the report before us is a table giving the death-rates of enteric fever per 1,000,000 of the population in England, London, Manchester, Prussia, and Berlin for many years past, its object being to show that Manchester has not shared in the diminished mortality from this disease which has been manifest in the other places referred to. In connexion with this question of diminished enteric fever mortality, Dr. Niven has procured statistics as to the fatality-rate of enteric fever in some of the largest fever hospitals in England and Scotland, but these fail, it appears, to show that the general diminution of the disease is to be attributed in any marked degree to improved methods of treatment. With two important matters contained in Dr. Niven's report we have already dealt—i.e., small-pox and "an occurrence of milk infection," the latter of which was contained in a special article by Dr. Niven;[1] and we can only add that the report before us contains a very able dissertation upon back-to-back houses in which the subject is treated with considerable originality. Dr. Niven devotes himself in the main to a consideration of the fallacies which may attend conclusions on back-to-back house figures, and after a very thorough analysis of the figures and facts relating to Manchester he agrees with the general results obtained by Dr. Tatham and Mr. Herbert Jones—i.e., "that back-to-back houses by their mode of arrangement produce a direct injury to health which, however, so far as death-rates are concerned, is most manifest in early life and at advanced ages." These pages of Dr. Niven's report will be read with much interest by all medical officers of health, and, in conclusion, we heartily congratulate him upon his first annual report for the city of Manchester.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

In thirty-three of the largest English towns 6291 births and 3876 deaths were registered during the week ending Nov. 16th. The annual rate of mortality in these towns, which had increased in the four preceding weeks from 19·1 to 22·1 per 1000, declined again last week to 19·1. In London the rate was 17·9 per 1000, while it averaged 19·9 in the thirty-two provincial towns. The lowest rates in these towns were 10·0 in Huddersfield, 12·2 in Brighton, 13·0 in Derby, 13·2 in Leicester, and 14·6 in Plymouth; the highest rates were 23·7 in Wolverhampton, 25·0 in Salford, 26·2 in Bolton, 30·8 in Liverpool, and 36·4 in Blackburn. The 3876 deaths included 522 which were referred to the principal zymotic diseases, against 590 and 606 in the two preceding weeks; of these, 163 resulted from measles, 107 from diphtheria, 83 from diarrhœa, 66 from whooping-cough, 64 from "fever" (principally enteric), 38 from scarlet fever, and 1 from small-pox. No death from any of these diseases was recorded last week in Plymouth; in the other towns they caused the lowest death-rates in Leicester, Brighton, Croydon, and Derby, and the highest rates in Liverpool, Salford, Wolverhampton, and Blackburn. The greatest mortality from measles occurred in Liverpool, Wolverhampton, Salford, Oldham, and Blackburn; from scarlet fever in Gateshead; from whooping-cough in Liverpool, Newcastle-upon-Tyne and Wolverhampton; and from "fever" in Salford, Oldham, Burnley, and Sunderland. The 107 deaths from diphtheria included 61 in London and 8 in West Ham 5 each in Wolverhampton, Birmingham, and Liverpool, and 4 each in Manchester, Salford, and Newcastle-upon-Tyne. One fatal case of small-pox was registered in West Ham, but not one in London or in any other of the thirty-three towns. There were 86 cases of small-pox under treatment in the Metropolitan Asylum Hospitals and in the Highgate Small-pox Hospital on Saturday last, Nov. 16th, against 114, 106, and 78 at the end of the three preceding weeks; 23 new cases were admitted during the week, against 14, 29, and 14 in the three preceding weeks. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital at the end of the week was 2845, against 2833, 2841, and 2847 on the three preceding Saturdays; 298 new cases were admitted during the week, against 269, 215, and 349 in the three preceding weeks. The deaths referred to diseases of the respiratory organs in London, which had been 366 and 447 in the two preceding weeks, declined to 340 last week, and were 84 below the corrected average. The causes of 50, or 1·3 per cent., of the deaths in the thirty-three towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Bristol, Nottingham, Bradford, Leeds, Hull, and in eleven other smaller towns; the largest proportions of uncertified deaths were registered in West Ham, Birmingham, and Leicester.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had increased in the three preceding weeks from 18·9 to 21·4 per 1000, declined again to 18·5 during the week ending Nov. 16th, and was 0·6 per 1000 below the mean rate during the same period in the thirty-three large English towns. The rates in the eight Scotch towns ranged from 14·2 in Leith and 15·9 in Dundee to 22·5 in Aberdeen and 26·8 in Greenock. The 535 deaths in these towns included 18 which were referred to whooping-cough, 11 to diarrhœa, 9 to scarlet fever, 5 to measles, 5 to diphtheria, 3 to "fever," and 1 to small-pox. In all, 52 deaths resulted from these principal zymotic diseases, against 69 and 77 in the two preceding weeks. These 52 deaths were equal to an annual rate of 1·3 per 1000, which was 0·8 below the mean rate last week from the same diseases in the thirty-three large English towns. The fatal cases of whooping-cough, which had increased from 11 to 21 in the three preceding weeks, declined to 18 last week, of which 14 occurred in Glasgow, and 3 in Aberdeen. The 11 deaths referred to diarrhœa showed a considerable decline from those recorded in recent weeks and included 5 in Glasgow. The fatal cases of scarlet fever, which had been 10 and 11 in the two preceding weeks, declined again to 10 last week, of which 3 occurred in Glasgow and 3 in Edinburgh. The 5 deaths from measles were within one of the number in the preceding week, and included 3 in Greenock. The fatal cases of diphtheria, which had been 5 and 8 in the two preceding weeks, declined again to 5 last week, of which 2 occurred in Glasgow. The 3 deaths referred to "fever" were considerably below the number recorded in any recent week, and included 2 in Edinburgh. The fatal case of small-pox occurred in Glasgow. The deaths from diseases of the respiratory organs in these towns, which had been 136 and 173 in the two preceding weeks, declined to 134 last week, and were 21 below the number in the corresponding week of last year. The causes of 40, or more than 7 per cent., of the deaths in these eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 31·5 and 24·3 per 1000 in the two preceding weeks, further declined to 23·1 during the week ending Nov. 16th. During the past seven weeks of the current quarter the death-rate in the city has averaged 24·6 per 1000, the rate during the same period being 18·4 in London and 17·6 in Edinburgh. The 155 deaths registered in Dublin during the week under notice showed a decline of 8 from the number in the preceding week, and included 6 which were referred to the principal zymotic diseases, against numbers declining from 29 to 8 in the five preceding weeks; of these, 2 resulted from small-pox, 2 from "fever," 2 from diarrhœa, but not one from measles, scarlet fever, diphtheria, or whooping-cough. These 6 deaths were equal to an annual rate of 0·9 per 1000, the zymotic death-rate during the same period being 2·6 in London and 1·5 in Edinburgh. The deaths referred to different forms of "fever," which had been 2 and 4 in the two preceding weeks, declined again to 2 last week. The fatal cases of diarrhœa, which had declined in the five preceding weeks, from 17 to 2, were again 2 last week. The 2 fatal cases of small-pox exceeded the number recorded in any week during the current quarter. The 155 deaths in

[1] THE LANCET, Jan. 19th, 1895.

Dublin last week included 23 of infants under one year of age, and 33 of persons aged upwards of sixty years; the deaths both of infants and of elderly persons showed a decline from the numbers recorded in the preceding week. No deaths from violence were recorded and only one inquest case was registered; and 46, or nearly a third, of the deaths occurred in public institutions. The causes of 11, or more than 7 per cent., of the deaths in the city last week were not certified.

THE SERVICES.

THE ASHANTI EXPEDITION: MOVEMENTS OF THE MEDICAL STAFF.

WE understand that the hospital ship which is now being fitted out for the Ashanti Expedition will be in the Medical Charge of Brigade-Surgeon-Lieutenant-Colonel E. Townsend, and that he will be assisted by Surgeon-Majors Porter and Dodd. Surgeon-Major Wilson and Surgeon-Captain Eckersley have received orders to embark for Cape Coast Castle on the 23rd inst. Surgeon-Major Wolseley, who is also under orders for Ashanti, will be in command of the detachment, Medical Staff Corps, and Surgeon-Captain O'Callaghan will be his second in command. Surgeon-Majors Hickman, Bartlett, and Hughes, and Surgeon-Captains Beevor, Hilliard, Josling, and Barker are also under orders to join the expedition. The Nursing Staff on board the hospital ship will consist of Nurse Gray (Acting Superintendent) and Sisters Potts and McCordy.

ARMY MEDICAL STAFF.

Brigade-Surgeon-Lieutenant-Colonel John Maturin, F.R.C.S.I., to be Surgeon-Colonel, vice J. B. Hamilton, M.D. Brigade-Surgeon-Lieutenant-Colonel Charles White is placed on retired pay. Surgeon-Lieutenant-Colonel George D. N. Leake to be Brigade-Surgeon-Lieutenant-Colonel, vice J. Maturin, F.R.C.S.I. Surgeon-Lieutenant-Colonel Poole R. Gabbett to be Brigade-Surgeon-Lieutenant-Colonel, vice H. W. A. Mackinnon, D.S.O., retired.

INDIA AND THE INDIAN MEDICAL SERVICES.

Brigade-Surgeon-Lieutenant-Colonel G. Hutcheson (Bengal) is granted the temporary rank of Surgeon-Colonel whilst officiating as Inspector-General, Civil Hospitals, North-West Provinces and Oudh, during the absence on leave of Surgeon-Colonel W. P. Warburton. Surgeon-Captain J. M. Cadell, Officiating Civil Surgeon, on completion of special duty, is to take Civil Medical Charge of the Dehra Dun District as a temporary measure.

The following officers have embarked for a tour of service in India:—Surgeon-Lieutenant-Colonel Charlesworth, Surgeon-Majors Lane, Eilis, and Donovan, Surgeon-Captain Reade, and Surgeon-Lieutenant MacMunn.

The *Army and Navy Gazette* says that a general redistribution of medical officers in India will take place now that the Chitral force is completely broken up. The British General Hospital at Cherat having closed, only the Station Hospital remains, with Surgeon-Major Saunders and Surgeon-Captains Butchell and Brogden. Surgeon-Captains Swan, Hathaway, and O'Donnell, on return from Chitral, are posted to Peshawur; Surgeon-Captains Aplin and Vost resume duty with the Civil Department, North-West Provinces. Brigade-Surgeon-Lieutenant-Colonel Anthonisz goes to Jubbulpore, Surgeon-Major Carleton to Bellary, Surgeon-Majors Roy and Adams to Neemuch, Surgeon-Captain Thurston to Bareily, Surgeon-Captain Pilcher to Lucknow, Surgeon-Captains Jameson and Tyrrell to Rawul Pindi, and Surgeon-Captain Bunn, Army Medical Service, is re-posted to Bareily."

YEOMANRY CAVALRY.

Surgeon-Captain G. R. T. Phillips to be Surgeon-Major.

VOLUNTEER CORPS.

Artillery: 1st Cumberland: George Martin, gent., to be Surgeon-Lieutenant. *Rifle:* 1st Volunteer Battalion the Suffolk Regiment: Surgeon-Lieutenant W. Vernon resigns his commission. 2nd Volunteer Battalion the Duke of Wellington's (West Riding Regiment): Surgeon-Captain J. Martin resigns his commission.

THE ASHANTI PREPARATIONS.

The daily papers have given pretty full accounts of the preparations that are being made for the Ashanti expedition, and there has been of late great activity at the War Office. Time is always an important element in a matter of this kind, and happily there has been sufficient time allowed on the present occasion to make the necessary arrangements and preparations. According to the published accounts in the *Times* and other papers of the stores and supplies these would seem to be very complete and suitable for a campaign in such a climate. Trial is to be made of Maconachie's tinned ration of mutton, vegetables, and gravy; and also of "emergency rations," consisting of chocolate and solidified beef-tea. Cocoa, chocolate, and tea will, of course, be freely supplied; and we are not, on the whole, sorry to see that there will be an issue of rum. If this be given in moderate quantities with food towards the end of the day and after marches it will be found to be beneficial and not injurious to the troops; soldiers on the march enjoy and look forward to the daily issue of a spirit ration. The provision of tobacco for soldiers in the field is also a wise and good one in our opinion. For such a climate a lighter kind of tobacco than that which the soldier uses at home is, however, desirable. The water procurable commonly contains a good deal of suspended matters and vegetable débris, and the use of alum—of which a quantity will be supplied—is to be advocated as an excellent water clarifier. As regards the *personnel*, it is understood that some twenty medical officers and about 100 men of the Army Hospital Corps have already been placed under orders, with a number of lady nurses. It is, we believe, intended that the Army Hospital Corps will be divided into three sections—one for the base and lines of communication, another for the hospital ship, and the third for service in the field with the advancing troops. The difficulty on this occasion, as on others, has not been to obtain officers, non-commissioned officers, and men of all branches of the service, for all ranks are ready enough to volunteer for this and every other campaign, but to select the requisite number out of those desirous of going.

"THE SANITARY CONDITION OF ALDERSHOT."

Under the above heading a correspondent who signs himself "E. F." writes to the *Morning Post* of Nov. 19th making some grave charges respecting a subject we have repeatedly called attention to in the columns of THE LANCET. "Two or three months ago," he says, "a young Artillery officer was sent home from Aldershot suffering from scarlet fever arising from the insanitary condition of his quarters, where the sewage came up through the boards, the excuse being that it would cost £5000 to remedy the evil. During the illness of the officers the place was examined and reported to be thrown down. You will scarcely believe that after their return to quarters the officers were again put into that unhealthy den, but such is the case. On Monday last my young friend was again sent home, sickening for typhoid fever, and now lies under the care of two doctors and two nurses. Others of his companions may be suffering in the same way. The regiment is to go to India next year. Is it to prepare them for India that they are put into fever dens?" If such a condition of things really exists at Aldershot it is certainly time that some drastic measures should be taken by the Government to free this question from the red-tapeism in which it has been too long entangled.

THE MALARIA PARASITE.

The *Times of India* of the 26th ult. contains a lengthy communication descriptive of the results of Surgeon-Lieutenant-Colonel Lawrie's observations and experimental researches on this subject. It is well known that this officer, as the result of some 200 observations made on healthy and malarial and other diseased blood, denies the existence of the plasmodium in the blood of malarial patients. While a considerable number of experiments seem to have been made on stained specimens, but little mention is made as to the results of the examination of fresh blood. But we have not yet seen any printed report of these observations, and it would, therefore, be quite premature at present to form any conclusion in regard to them.

VOLUNTEER AMBULANCE SCHOOL OF INSTRUCTION.

Lieutenant-General G. H. Moncrieff will present the prizes of this school at 7.30 P.M. at the Banqueting Hall, Crosby Hall, E.C., on Saturday, Dec. 7th. Among those who have accepted the invitation of the Staff to be present are Brigadier-General W. H. Gatacre, D.S.O., recently commanding the third brigade of the Chitral Expeditionary Force. Captain Sir Alfred Jephson, R.N., Secretary-General

of the Order of St. John of Jerusalem, and Colonel Sir Herbert Perrott, Secretary of the Order. Past and present members of the school can obtain tickets for the distribution and concert by making early application to Mr. C. J. Downer, Fairfield, Willesden-park, N.W.

THE NAVAL EXAMINATION.

The under-mentioned gentlemen who recently competed for appointments as Surgeons in the Royal Navy have been granted commissions:—

C. H. J. Robinson	2634	H. H. Gill, M.B.	2239
H. Huskinson, M.B.	2579	W. D. Adams, M.A., M.B. ...	2244
E. S. Tuck	2548	W. R. Trythall	2233
H. G. T. Major	2529	E. G. E. O'Leary	2188
M. P. Jones	2372	J. C. Rowan, M.B.	2155
A. W. B. Livesay, M.B. ...	2344	R. A. Ross, M.B.	2042

THE CLARENCE SMITH CASE.

We learn from the Indian papers that the commission appointed to investigate the facts connected with the case of Surgeon-Major Clarence Smith of the Indian Medical Service, to which, it will be remembered, we have already referred, have terminated their inquiry, but the result has not been promulgated.

We are informed by a correspondent that the common iliac artery was tied through a median laparotomy at Dover Castle Station Hospital on Sunday last for a very large diffuse aneurysm involving the common femoral and external iliac arteries. Reports made up to date state that the patient is doing well. The operation was performed by Brigade-Surgeon-Lieutenant-Colonel W. F. Stevenson, assisted by Surgeon-Major Whitehead and the officers of the hospital. We hope to give a full report of the case later.

The Secretary of State has sanctioned the amalgamation of the three branches (Bengal, Madras, and Bombay) of the Indian Medical Service into one service under the administrative control of the Government of India, and has also accepted a proposal that the Surgeon-General with the Government of India should be the head of the amalgamated service under the designation of Director-General of the Indian Medical Service.

A dinner was given on the 11th inst. by the officers of the Army Medical Staff at Shorncliffe to Brigade-Surgeon-Lieutenant-Colonel J. H. Reynolds, V.C., who will shortly retire from the service.

Correspondence.

"Audi alteram partem."

THE "PRIMARY" EXAMINATION OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

To the Editors of THE LANCET.

SIRS,—In sequel to a letter *re* the "Elementary Examinations in Anatomy" in THE LANCET of Oct. 19th of this year, I propose to say a few words about the Second Examination or "Primary." This is an examination in which candidates are expected to have a fair knowledge of human anatomy and physiology. The candidate is not admitted to it unless he has previously passed an examination in elementary anatomy, biology, chemistry and practical chemistry, materia medica, and physics. I think I have shown pretty clearly that the examination in elementary anatomy is practically a useless one, or worse than that, one which instead of being a real help to the student is a drawback, and one which might readily be dispensed with as it is in the London University examination, because in the majority of cases it causes a student to waste much valuable time in his first winter and, worse than that, demoralises him. The Second Examination is really a good all-round one, so far as its requirements go, though its results are often startling and unaccountable; but that one can be prepared for to some extent in any examination which is conducted by an examining board when the members of which for the most part know nothing of the college work of the student. These results, as I have before said, are sometimes startling, many students sometimes passing who scarcely ought to pass, and many others failing who ought certainly to pass.

In an examination partly conducted by teachers such results could scarcely come about because one examiner at least knows what the candidate knows by what he has done in the class examinations he has from time to time as a teacher conducted; but in such an examination as that held by the Royal College of Surgeons, and especially in the *viva-voce*, which lasts only ten minutes, some grave errors are constantly committed. The element of luck largely enters into such examinations, and thus the most ignorant student may pass, and frequently does, whilst the hard-working, plodding, and conscientious student, who often is nervous because he thinks he may be questioned on knotty points which the more ignorant man never heard of, gets "ploughed." I am not speaking theoretically here—I speak from a large experience of both kinds of students. It may, of course, be urged that London University students suffer the same disadvantages, but that is not so: they have two papers on anatomy with usually not less than six or seven questions on them, and these are followed by a two hours' examination on practical anatomy, giving a student a much better chance of showing what he knows than when he has one "paper" of four or five questions followed by ten minutes' questioning. In the latter case a candidate is very much more the possible victim of circumstance. His examiner not knowing him may be curt, petulant, angry, sarcastic, tired, or indifferent, any of which conditions may upset the mental balance of the wretched candidate, especially if he be of the nervous type I have mentioned—and unfortunately the nervous men are, in the main, distinctly above the average, according to my experience, the most jaunty being usually the most ignorant—and he fails. He has worked well from beginning to end, and is naturally discouraged on knowing that his easy-going fellow student has passed. No one knows better than the teacher the injustice of the thing, and no one better than the provincial teacher. It seems to me that the provincial student labours under a greater disadvantage than the London student, for the latter has at least the satisfaction of knowing that there is a possibility of his teacher examining him, or at least being present during the examination (I do not by this cast the slightest insinuation of favouritism, but I mean that the student who is examined by his teacher must have a better chance of passing creditably than one who is not, because that teacher cannot but know something of the student's history).

It is unfortunate that so many of the examiners belong to London when so many of the candidates are drawn from the provincial schools. There are ten such schools in England alone, and I believe that there are only two examiners drawn from them. The regulations at present debar men who do not possess the qualifications of the Royal College of Surgeons of England, which means that the majority of provincial teachers are excluded, although they are for the most part entirely occupied with the teaching of anatomy. If these regulations are unbreakable, much still can be done. A certain amount of information as to a student's career could be obtained by so remodelling the "forms" for admission to the examination and adding to them a clause to the effect that the candidate's application must be backed up by a report of his work, along with the marks he has obtained in the "class examinations" held during the time prescribed for study. At present he is supposed to have attended "class examinations," but it seems to be a matter of indifference as to whether he obtained 1 or 100 per cent. in them. Obviously such a clause, as it at present exists, is useless.

Then there is another point which is of vast importance both to the teacher and the student. At present when a student passes the Primary Examination he passes, and there is an end of it. He may make 100 per cent. or he may make a modest 50; in either event he is neither better nor worse than his fellow, and he is none the wiser. There certainly ought to be some improvement here. I do not know what powers the Board possesses, but it seems to me that it would be a simple matter to add to a man's pass certificate, "with credit," or "with great credit," if the giving of "honours" be impossible. I think I am right in saying that this is now done in the triple qualification of Scotland. Could this be done it would alter the state of affairs completely. At present, as matters stand, the good student who has resolved on taking the "qualification" of the Conjoint Board has no inducement to do more than a certain amount of work, and the lazy student's mind is chiefly occupied with making the marks necessary to pull him through. It is very considerate of the College to regard

all the holders of its qualifications as being of equal intelligence; but it is an idea which is on the face of it untenable, and it has a bad effect on all concerned. Many a man would work with pleasure to pass his examinations "with credit" could he do so, and there is little doubt but that he would the more readily find employment after doing so, but as things are he knows that fifty marks are of as much value to him as a hundred, and he consequently directs his studies accordingly, not trying to get up as much knowledge as possible, but puzzling his brains chiefly with a view to finding out how much knowledge he will require to display in order to make the necessary fifty marks, and he is a clever teacher who can persuade a student to read in order to make fifty-one marks when fifty will suffice. We who have passed our examinations and are becoming fogeys, so to speak, find it easy to say that it is a student's fault if he does not make the most of his opportunities, but if we think for a moment of our student days I think we will admit that our enthusiasm for work was largely regulated by the opportunities we had of obtaining some definite recognition of that work. The seriousness of the question arises most impressively to the "newly qualified" man who seeks employment. Ninety-nine men out of a hundred have nothing by which they can claim greater recognition than their fellows. They can only say they have the necessary legal qualifications just as hundreds more have, and as to testimonials, the less said of them the better. It is a high ideal, no doubt, to suppose that every man possessing the M.R.C.S., L.R.C.P. is as good as his fellow M.R.C.S., L.R.C.P., but in these matter-of-fact days ideals are little more than ideals, especially where employment and the making of daily bread are concerned. If there be any objection at all in the giving of a student credit for the work he does, it is in giving it at the time when he does that work; in other words, when he passes his examination. To be more precise, it may be argued that it is a bad thing to indicate to a student that he has obtained credit in a certain subject at the time of passing that examination, because it may cause him to specialise in one subject to the neglect of the other. That is certainly a serious objection, but one that could easily be got over by announcing at the time of passing the Final Examination the subjects in which the student has distinguished himself. I am sure that this is a proceeding which would give the greatest satisfaction to all candidates for the M.R.C.S. and L.R.C.P. and to medical men requiring assistants; in fact, many members of both classes have assured me that they would hail with the greatest possible satisfaction such an innovation. I feel very strongly that the much-vexed questions of "a degree for London students" and "a Teaching University for London" are the outcome of an honest desire on the part of qualificates of the Royal Colleges of Surgeons and Physicians to show something more for their work than the mere letters M.R.C.S. and L.R.C.P.; and I feel sure that there would not be the unseemly squabbling over who is to be called "Dr." and who not if men could obtain a diploma of which they might be proud, one which would be a certificate either of ability or hard work, or of both.

I am, Sirs, yours faithfully,

EDWARD FAWCETT, M.B. Edin.,
Professor of Anatomy, University College, Bristol.

Nov. 5th, 1895.

"THE ADMISSION OF WOMEN TO THE ROYAL COLLEGES OF PHYSICIANS OF LONDON AND SURGEONS OF ENGLAND."

To the Editors of THE LANCET.

SIRS,—I have read with great interest the two letters that have appeared in THE LANCET of Nov. 16th in reference to the question of women being admitted to the examinations of the Royal Colleges. Having been present at the general meeting of Fellows and Members of the Royal College of Surgeons of England on the 7th inst., I heard the views expressed on both sides, and I think that Mr. Hastings Gilford's letter represents as a whole the general feeling of the Fellows, and that of Mr. A. S. Morton the consensus of opinion among the majority of the Members who were present. The latter's remarks are quite in keeping with those made by the Members who spoke on that occasion, and it seems to me not a little surprising that the antagonists of the ladies are not able to advance any more sound or cogent reasons for their opposition than have hitherto been expressed. One Member remarked that it was a horrible sight to see women operate, to which he received the immediate answer that it was also a horrible sight to see some men operate. Again, he said that women were incapable of arresting hæmorrhage by reason of their tendency to faint at the sight of blood, and ingeniously added that *he* had never seen a man so affected. To this I may say that those who have had long experience at our medical schools know that men often faint at the sight of blood, whereas nurses rarely if ever do.

Such statements as the above quoted are evidently made at random, and Mr. Morton also falls into the error of thinking that mere assertion is argument. For instance, he says that ladies are "neither required nor wanted" (*sic*) on the roll of the Royal Colleges, but surely this is no reason for their non-admittance; for are there not many men yearly obtaining diplomas from the said Colleges who in the present overcrowded state of the profession may equally be considered as "neither required nor wanted"? Nevertheless, on this plea we do not bar their way. In another part of his letter he asks, apparently with fear and trembling, "What is to prevent women, in the event of their taking the Fellowship of either College, from occupying the professorial chairs?" adding that in that case we should have the "glaring anomaly of women teaching the men," and pathetically exclaiming, "This is no fancy picture." On this point, I fear, there is little consolation to offer him, for if women ever attain a greater amount of knowledge than men it would surely be more glaringly anomalous were the latter to refuse to profit by their teaching on the trivial question of sex. Again, he asserts that "from a recent glaring case women, from their teaching and practices, are prepared to inculcate acts of direct and open immorality." Must we infer from this that Mr. Morton is not more logical than to generalise from an individual instance?

If no sounder reasons than the above can be advanced against the women's claim methinks it were more comely to preserve silence on the subject, since the only construction that can be put upon these views is that they arise from mere dread of competition. Indeed, that this fear is the main reason for the hostile attitude displayed by the opposition party I have no doubt whatever.

It were regrettable if these gentlemen have come to such a pass that they should strive to do away with so great an incentive to progress. Is it not the very competition that we are open to that creates within us a spirit of emulation—that inspires us to achieve greater things? To fear competition, then, and to be jealous of a neighbour's chance of success, is verily an acknowledgment of weakness. On the other hand, to defy competition by manfully keeping abreast of the times by an ever-constant pursuit of knowledge is surely a more worthy course to follow for the purpose of safeguarding and preserving professional status than to resort to the baser means of barring the doors to new-comers.

In conclusion, I would say that if the body of Members wishes to have a voice in the management of the Royal College of Surgeons of England, it must see that its representatives are able to decide questions of importance without prejudice or jealousy, and so show themselves possessed of that width of learning and depth of general culture so essential to those who hold the reins of government.

I am, Sirs, yours faithfully,

W. ERNEST MILES, F.R.C.S. ENG.

Kensington, W., Nov. 18th, 1895.

To the Editors of THE LANCET.

SIRS,—I rather fancy that Sir Walter Scott was to blame in having had his share in the production of the "new woman," for was it not he who sowed the medical seed in the female mind by commenting, in an unguarded moment, upon the value of woman in the sick room? It is natural to suppose, however, that the "ministering angel" of his imagination came armed only with the average feminine attributes, rather than brandishing a medical diploma in one hand and a catheter in the other. In any case, it certainly seems strange that the medical profession—and by this I mean the actual practice of the profession as distinguished from nursing—should attract women; but no doubt it is, as Mr. Gilford remarks in his letter, one of the signs of the times, for the new woman is, *par excellence*, a morbid product, and it is, therefore, quite intelligible that she should wish to study morbid anatomy.

We shall one day have a reaction and find women anxious to resume their time-honoured *rôle* of "guardian angel," and then, perhaps, they will invade the pulpit, where, after all, they will be less out of place than in the Presidential Chair of the Royal College of Surgeons of England. They are far more suited in every way to be our moral and spiritual than our physical advisers. Mr. Morton has grasped all the salient points of the question, and in his letter has ably set them forth. He has shown that female physicians are now no longer a necessity in India, and he has politely implied that they are a luxury that England can dispense with. He has pointed out the absurd possibility of women occupying professorial chairs. In this connexion one cannot help calling to mind that graceful and fantastic and withal prophetic satire, "The Princess," which Mr. Gilford would not consider up to date, seeing that the Laureate depicted his ideal woman as being "not learned save in gracious household ways," and as one who cares not "to walk with Death and Morning on the silver horns."

In conclusion, I think the profession owes a debt of gratitude to the London Colleges for their joint verdict, and I regret that my own colleges should have succumbed to a spirit of gallantry.—I remain, Sirs, faithfully yours,

Reading, Nov. 19th, 1895. CLAUDE A. P. TRUMAN.

To the Editors of THE LANCET.

SIRS,—Having taken a personal part in the controversy at the annual meeting of Fellows and Members of the Royal College of Surgeons, *re* the admission of women to the Membership of the College, I beg to avail myself of your valued columns to emphatically refute a floating assertion that the majority of general practitioners view with favour the proposed admission of women, not only to the functions of the general practitioner, but also to those of the consulting surgeon and operator. Ask the majority of British husbands and fathers, comprising as it does the majority of general practitioners, whether they would desire to behold their wives or daughters performing surgical operations. Do we not daily encounter men, clear-headed in danger, generously ready to risk their lives for a good cause or to save that of a fellow creature, yet who sicken at the thought of even witnessing, still more performing, an excruciating surgical operation? We do not blame their humane lack of firmness. Do we, then, wish to see the gentler sex surpass even many a gallant soldier in sensibility? Divine wisdom has obviously assigned certain walks of life to the sterner, others to the fairer, moiety of our race; and when at the above meeting I seconded Mr. Joseph Smith's resolution I maintained, and do so still, that a woman who undertakes the revolting though beneficent duties of the operating surgeon unsexes herself thereby. In this country at least—nay, in all the long-established nations of Europe enriched with a practical experience of ages still lacking to newly constituted communities of colonial origin—we see the law still keeping its portals closed to aspirant female practitioners, the Church still more peremptorily denying the gentler exercise of its ministry to women, because the consensus of ages is that, however admirable her mental endowments in many respects, even the Christian pastorate, still more so the acrimony of forensic debate (itself repulsive in many criminal cases to her innate modesty), do not offer her own special good qualities a suitable field of labour. Her sphere is home—it is nothing, a mere empty sound, without her to adorn it. The more genuine she is, the more man looks up to her; and, when compelled to earn an intellectual living, at least let her eschew duties from which a courageous and strong man may be excused for recoiling. I am, Sirs, yours faithfully,

J. BRINDLEY JAMES,
Surgeon, Municipal Throat and Ear Infirmary.

Bridge-road, Hammersmith, W., Nov. 18th, 1895.

To the Editors of THE LANCET.

SIRS,—More than a century ago the spurious doctrine of "Égalité" promulgated by Hobbes and Rousseau was, to a certain extent, a factor in hastening on the Revolution of 1789. Men are not equal intellectually, physically, morally; and so far as the individual possesses these attributes singly or collectively in excess of his fellow men, so far will the gulf which divides them widen. Now, Sirs, as concerning medicine, a worse doctrine than the above presents: as men are unequal, how much more is this inequality shown by the admission of women into the profession, and by the fact of such admission placing them upon the same footing as men and acknowledging them as equally fitted to perform the duties of practitioners. From all points of view, as has been already expounded in your journal, they are from their constitution unfitted to practise medicine, and their admission into the profession will only tend to cheapen and degrade what is already an overcrowded calling. There are many men who would be only too glad to give up practising in open surgeries and dispensaries in exchange for higher fees &c. were it not that they are compelled to live by their profession. The Royal Colleges in London have acted wisely in refusing, by their late decision, the admission of women to their examinations, and it is the duty of those who are responsible to keep up the traditions which have been handed down. I remain, Sirs, yours faithfully,

Nov. 18th, 1895. M.R.C.S.

"THE PHYSIOLOGY OF DEATH BY ELECTRIC SHOCK."

To the Editors of THE LANCET.

SIRS,—I have much pleasure in replying to Mr. Fotheringham's courteous letter in THE LANCET of Oct. 12th. The point about which he desires some further explanation is the nature of the influence exercised upon the natural functions of the body by the opposition of similar magnetic poles. Mr. Fotheringham says: "Granting for a moment that no more complex result might be expected from the opposition of similar magnetic poles, is it reasonable to suppose that such a radical change of direction as the one under consideration could take place without causing some very distinct modification of the natural functions of the body? The fact that no such modification actually occurs when the living body is introduced into the most powerful magnetic field—no matter in what position the one may be placed in relation to the other—would appear, I think, to tell very strongly against the validity of Dr. Shettle's theory." In discussing this question I would first call attention to the fact that all the constituent elements of the body are polar—i.e., they manifest magnetic or diamagnetic properties; and, secondly, I would point out that chemical action, by which the various processes of life are naturally maintained, is identical with electric action and is essentially a polar force. The question to be considered, therefore, is why, and to what extent, are these polar forces capable of being modified by external force of the same description without changing the character of the phenomena? A brief reference to some experiments which I made upon bar magnets some years since may throw light upon what takes place in magnetic atoms when subjected to force from various directions.

Taking two bars of steel, as equal in magnetic power as I could render them, I placed them together in every sort of position, and by watching the behaviour of fragments broken from the pointed ends of needles I examined and tested the lines of magnetic force in every instance. To make a long story short, one result of these experiments was to prove that the cause of the poles of a bar magnet not being situated respectively at its extreme ends, but at some little distance short of them (as determined by the late Astronomer Royal), is due to the effect of lines of reactionary force which pass from the ends of the bar to meet those which come from the equator, the polar line marking the position where these forces collide and are ejected from the bar. It is absolutely necessary that I should explain how I arrived at this conclusion, because it has a very important bearing upon the cause of magnetism. When two similar poles of bar magnets of equal power were approximated the needle points, which had been placed on the line of the magnetic pole of each bar, fell, and they could not be made to resume their more or less vertical direction until they were placed over the line of contact of the two bars; if the magnets were of unequal power the polar line would be found on the stronger bar, and in proportion to the disparity of force between the two magnets it would be at a greater or lesser distance from the bar end. The other positions assumed by the needle points as they approached the new polar line from either direction were identical with those which they took on a single bar magnet when moved in the direction of the polar line. On the other hand, when two dissimilar poles were placed together almost all polar manifestations

vanished, and the phenomena at the point of contact then tended to become like those at the equator of a single bar magnet; and they might be compared to the magnetic phenomena which are exhibited by a copper wire whilst conducting an electric current. By these and other experiments I have satisfied myself that one of the distinguishing differences which exist between magnetic and diamagnetic matter resides in the property which magnetic matter possesses, by the induction of reactionary force from the bar ends, of throwing outwards from its poles the force which has traversed it from the equator to the poles, which property diamagnetic matter does not possess, although a diamagnetic copper wire, as I have stated above, *whilst transmitting a current* is magnetic transversely to its axis.

In my letter of Sept. 28th I drew attention to the supposition that the molecules of soft iron are magnetic, but that they do not manifest polar phenomena because they have no definite arrangement, the polarity of one molecule neutralising that of another. Now this has a very important connexion with the condition of the columns of blood as they traverse the body. That this is so is readily recognised when we consider that the blood is composed of corpuscles and liquor sanguinis. The corpuscles in both the venous and arterial states are magnetic (as proved by Dr. A. Gamgee), but they float in a highly diamagnetic medium, and, as I have shown, they are more highly magnetic in the arterial state in proportion to the oxyhæmoglobin which they contain. Consequently, the blood columns may be compared to soft iron, with this difference—in soft iron the molecules have great capacity for magnetism and are closely packed together, whilst in the blood they are at most but feebly magnetic and are also comparatively widely separated. They are, moreover, during life undergoing *very rapid motion*, and therefore are but little liable to retardation from any influence which might be exercised upon them by the strongest magnetic poles. Again, if the blood is in the same state as soft iron there would be no definite arrangement of the molecules so long as they remain in the larger vessels. But when they are passing through the capillaries each corpuscle is most intimately associated with the terminal nerve fibres, and still more closely with the lines of terrestrial magnetic force, and the magnetic energy of the moving body in proportion to its intensity would promote action and reaction with these lines of terrestrial magnetism. Unless, therefore, we set aside one of the fundamental principles of magneto-electricity, it is obvious that these corpuscles are bound to originate currents of energy in the nerves in proportion to their magnetic force; and this notwithstanding the fact that the general direction of the polarity of the molecules aggregated into a mass may be modified by external force. I thus show that the magnetic force—i.e., the specific energy—of the blood corpuscles is manifested in the power which resides in them of inducing current energy in the nerves, or of doing work upon them, through the influence of the terrestrial magnetic force, when they are most widely separated from each other but most intimately associated with the nerves in the capillaries, and therefore at a time when they would be as little as possible subject to the influence of external force of the like nature.

I have now to consider the relations which exist between the molecules of matter in the liquor sanguinis, which are not of the nature of blood corpuscles, and an external magnetic force. Unquestionably the polarity—i.e., the specific energy—of each of these molecules must be elicited to the largest extent under this inductive influence; but here again I think there is abundant evidence that no such change in the condition of the molecules as Mr. Fotheringham supposes would occur, but rather that the natural powers of tissue formation would be increased. Thus:—1. Every molecule, in proportion to its specific energy, would tend to modify the direction of the artificial force. 2. The extent of this modification would depend (*a*) upon the number of molecules engaged in its production, (*b*) upon their state of aggregation, and (*c*) upon the state of rest or motion in which they existed. Now the parts of a body which would be principally affected by any artificial polar influences to which it was subjected would be primarily the formed structures, which are stationary and in which the molecules have been converted into solids of greater or less density, instead of fluids in which the minute molecules are freely suspended and float about more or less widely separated. Again, each of these tissues would continue to exercise the specific energy of its constituent molecules in definite lines, only with greater intensity in proportion as they are more closely packed and are subjected under such conditions to the polarising influence of the magnetic field in question. The molecules in the nutrient fluid would be similarly affected, and greater energy—or power to point in a definite direction—would be imparted to them, both by the influence of the artificial magnetic field and by the energy of the formed tissues. Thus each molecule would acquire its precise character and would be deposited in its normal situation whilst it was subjected to an abnormal amount of polarising force from these two sources, both of which must, more or less perfectly, coincide, and in proportion to any excess of artificial energy derived from an external source the tissue formation would be more compact and its energy greater. Therefore in all respects the abnormal force would be productive of beneficial rather than of injurious results. In substantiation of these views being correct I will refer to the process of crystallisation. In this process the molecules of several forms of matter may be held in one solution, and yet each form of matter will be attracted and deposited upon exactly that part of its primary crystal as will ensure oneness of matter and of form in each. Now it is very difficult to perceive how the original crystals exercise their natural powers in this manner until we recognise that each molecule exercises its specific energy through its specific polarity; and, further, that the whole of the elements engaged in the work are immersed in a magnetic medium. Then the whole process becomes clear enough, for as soon as some slight molecular motion has been set up and the magnetic field has been thereby disturbed the specific polarity emanating from the already formed crystals is exercised upon the adjacent molecules, and through them upon the molecules at a distance, with the effect of attracting and depositing some molecules upon their surfaces and of repelling others; thus the exact form of the original crystal is maintained. Now, the fact is well known that apparent rest of the mother liquor is essential to the formation of perfect crystals, and that matter of any kind when thrown into rotation tends to take the spheroidal instead of the angular form. The cause of this modification is, of course, due to the rotation, and I think that the conclusion is equally logical that the cells of the living body take the spheroidal form owing to the motion to which they are persistently subjected whilst they are being converted into the various tissues under the attractive and polarising influences emanating from the formed and forming tissues.

I think I have thus shown good and sufficient grounds for the view which I hold that neither the magnetic nor the diamagnetic forms of matter which compose the living body could be injuriously affected by subjecting it to the influence of the strongest magnetic field. I wish further to state that I had two objects in view when I added my quota to the correspondence in THE LANCET upon the Physiology of Death by Electric Shock. One was to explain the cause of the arterial system being comparatively emptied and the venous system gorged with blood; the other was to show that the force which, by its intensity, causes death is identical with that which, when its action is regulated by the motion of the particular forms of matter engaged in building up the material body, maintains the phenomena of life.

I am, Sirs, yours faithfully,

Reading, Oct. 19th, 1895. RICHARD C. SHETTLE.

P.S.—Since writing the above I have read in THE LANCET of Oct. 26th Sir George Johnson's letter. From the manner in which Sir George Johnson refers to my statement "that the absence of oxyhæmoglobin in the blood after death by electric shock is a fact beyond dispute," it would appear that he understood my words to imply that such a condition of the blood is only produced by electric shock. I did not intend to convey this idea, for this state of the blood is also produced by the prevention in any way of the due aeration of the blood, and, moreover, it is the natural result of the blood's normal circulation through the system. I regret that any want of clearness in expression on my part should have given rise to this misconception. My views as to the effect of the electric shock upon the oxyhæmoglobin may be best explained by reference to a very simple experiment—viz., the synthetic production of water by passing an electric spark through a mixture of the gases oxygen and hydrogen. When this is done the oxygen and hydrogen are combined and condensed into the highly diamagnetic liquid water, the magnetic character of the oxygen being temporarily suppressed. In my opinion, a physical change which is in character almost identically the same occurs in the

blood under the influence of electric shock; for oxygen is instantaneously combined with a carbon and diamagnetic substance is formed, and the oxyhæmoglobin simultaneously disappears. With regard to the interest which centres in "What is Life?" I would remark that the cause and nature of animal life are as essential to scientific medicine as a knowledge is to the engineer, for the proper construction of his mechanisms, of the natural forces by which those mechanisms will perform their work. In a very few words I will endeavour to render my meaning perfectly clear. It is well known that in steam and electricity we have two great forces, and by a careful consideration of their nature forms of mechanism have been invented capable under their power of doing almost any kind of work. In the foregoing letter I have endeavoured to show the manner in which the arterial blood does work upon the force of terrestrial magnetism, and terrestrial magnetism upon it, and how in this way that great natural force is utilised so as to cause the evolution of those phenomena which are natural to the living body. But the mechanism of the living body is constantly being impaired by the introduction of material impurity, and therefore it is that a full knowledge of the mode in which matter is productive of its effects, and also a knowledge no less full of the essential nature and conditions of that life the establishment of which in its truest environment and most perfect state is desired, become of such vast interest to the physician as well as to the human race in general.

"THE BATTLE OF THE CLUBS."

To the Editors of THE LANCET.

SIRS,—Our "Battle of the Clubs" here has reached this stage—that there are four outside competitors against the present holder—no local man is contesting. There have been other candidates, but they have been induced to withdraw. The present holder refuses to take infants and girl juveniles under 4*s.* per annum. May we ask your assistance in appealing in the columns of THE LANCET to these men, urging them to withdraw? I may, perhaps, add that the outside men have tendered for the infants and other juveniles at 2*s.* 6*d.*, 2*s.*, and 1*s.* 6*d.* per annum. There is absolutely nothing personal against the present holder. This battle was brought on by the Loyal Benevolent Lodge requiring him to attend infants from three months and juveniles of both sexes to fifteen years for 2*s.* 6*d.* per annum. The local profession is united to a man. If we can only win this fight there are many other reforms open to us with every chance of success. I am, Sirs, yours truly,

FREDERICK PEARSE, Hon. Sec.

Portsmouth Medical Union, Pembroke-road,
Portsmouth, Nov. 17th, 1895.

To the Editors of THE LANCET.

SIRS,—Your Special Commissioner has hit upon one of the chief difficulties in dealing with the club question at Hull. When the medical aid system was first imported into —— it was almost unanimously condemned by the resident practitioners. Its first medical officer undertook his duties knowing that so far as —— was concerned he would have no support from his professional brethren. The result was that this gentleman obtained a free hand, without competition, amongst several thousand people, and could always obtain a consultant from other towns when the nature of his cases required a second opinion. Our united action was therefore inoperative, and gave the suspicion that we were actuated entirely by selfish and personal motives in our repudiation of an institution of a philanthropic character, supported by the tacit approval of the leading members of the profession in the district, and by many influential and respectable townsmen. Finding also that in a case of grave emergency it was difficult to adhere to our resolution we abandoned our position, not because we considered it unjustifiable, but because we were advertising an institution whose methods we disapproved. At present consultants are little touched by this contract question, though it will doubtless affect them in their turn if they countenance the present system of provident medical aid. The snake which they warm will sting them in the pocket. Sir Dyce Duckworth said plainly at Southampton what he thought of medical aid ethics, but the thing goes on in spite of his and other protests, and will go on until we learn that it is the common interest of the profession to protect itself from the imposition of a pauperised public. Many a consultant who would tremble to meet a homœopath does not hesitate to throw the mantle of his protection over the covering of a lay committee in practice for gain by a medical man, whom they make absolutely their servant, and whom they sweat or dismiss at their own sweet will. While this is the case combination to regulate club practice is impossible.

I am, Sirs, your obedient servant,

J. B. PIKE.

"INFANT CRIMINALS."

To the Editors of THE LANCET.

SIRS,—On your most valuable Annotation in THE LANCET of Oct. 26th last, on the above subject, I beg to offer a few remarks. The family medical practitioners' duties, of necessity more than any other class of the community, compel them to observe the daily domestic lives of mothers and children. The accurate information, stated in your remarks to be so much needed, can only be obtained from the general practitioner who has almost daily opportunities of observing from birth the different phases of existence. Looking at this vital question from a domestic and clinical aspect, I am of opinion that we are too conventional in our ideas of heredity, skull and face formations, and I fear these stand in the way of realising the full importance of infant mental management. We who have lived long enough have over and over again seen the cruel, lying, selfish, and vicious child of the fat, dirty, lazy, and fatuous mother sent to the infant school, where the ethical law has been habitually and objectively hammered in, and, despite the surroundings, not only has the child passed on into becoming a good mother of a family, but also by precept and example taught her children in the way they should go. What are much needed, as I have advocated in your columns and in other journals, are fixed laws for the homes, bearing the stamp of coöperation and authority. We who have so long moved among the masses feel what influence an applied system would have, and how willingly many would carry out rules of guidance while dealing with infant development and abnormalities. Further, while acting on "the hygienic imagination" with a "time-table" hung up in the homes, we know how much in the decent ordering of life dormant ethical law can be aroused and appreciated.

I am, Sirs, yours faithfully,

Londonderry, Nov. 2nd, 1895. WALTER BERNARD.

*** Dr. Bernard forwards to us with his letter a "time table" to be hung up in cottage homes as a regulation of domestic affairs. There is no doubt that the orderly and accurate observance of the simple rules of health and cleanliness that he enjoins in the document would conduce to a sanitary and also a happy home.—ED. L.

"THE PICRIC ACID TEST FOR SUGAR IN THE URINE."

To the Editors of THE LANCET.

SIRS,—Pressure of work in connexion with the opening of my session and otherwise has hitherto prevented a reply to the recent letter of Sir George Johnson. I stated that if a solution of caustic potash and about an equal quantity of a saturated solution of picric acid be added to perfectly normal urine, a reddish colour is produced in the cold, and that when this solution is boiled the fluid assumes a deep claret colour. The same result ensues if the picric acid solution and the caustic potash solution be added to saccharine urine in the cold. On boiling, a deeper colour results in the latter case, the intensity of the colour depending entirely on the amount of glucose present. If the amount of glucose be small the colouring is not deeper at first than that which results in the case of perfectly normal urine. In this sense the picric acid test is, in my opinion, fallacious. Further, the solution gradually becomes of a darker colour on exposure. That Sir George Johnson himself maintains that the intensity of the carmine colouring is due to the proportion of sugar is evident from his recommendation of the picric solution as a quantitative test, the proportion of glucose being determined by the varying shades of colour. Sir George Johnson states that "the reddish colouration with picric acid and potash at the ordinary temperature in urine, whether normal or saccharine, is due entirely to

kreatinin, the strongest solution of glucose having when cold no reducing action on picric acid and potash until after an interval of at least an hour." I agree that glucose alone has no reducing action on picric acid solution and caustic potash in the cold, hence I agree with Sir George Johnson that when a certain reducing action takes place in the cold, as above, the reducing agent is some other than glucose; but whatever this reducing agent be it causes as deep a colouring on boiling as the glucose does in small quantity. I further stated that if the urine be rich in uric acid the colour produced on boiling with picric acid solution and caustic potash is deeper than in the case of ordinary urine, and to this Sir George Johnson assents, only Sir George Johnson contends that the greater intensity of the colouring is due to kreatinin. All I would say on this point is that my investigations have not satisfied me that kreatinin has anything whatever to do with the colouration in question, the colouring produced, as above, on boiling being as deep without as with it. Under these circumstances I consider myself entitled to maintain that the picric acid test for sugar in the urine is an "eminently fallacious" one.—I am, Sirs, yours faithfully,

D. CAMPBELL BLACK, M.D.,
Professor of Physiology in Anderson's College Medical School.
Nov. 2nd, 1895.

"THE THERAPEUTIC VALUE OF INTESTINAL ASEPSIS."

To the Editors of THE LANCET.

SIRS,—As the therapeutic value of intestinal asepsis has formed the subject of some recent communications to THE LANCET, would you permit me to draw the attention of your readers to a method I suggested some time since[1] of administering, as an intestinal antiseptic, sulphurous acid in combination with other antiseptics and disinfectants? Dr. Emerson Reynolds, F.R.S., Professor of Chemistry in the University of Dublin, announced to the Royal Dublin Society in 1889 that if sulphur dioxide gas is brought into contact with camphor, the latter can liquefy the gas without any pressure whatever. The sulphur dioxide gas, he ascertained, could be kept in this liquid form in an ordinary well-corked bottle, at mean temperature, without sensible change; but was evolved freely and in relatively enormous volume from it when the liquid was exposed to the air. Recognising the importance of such a solution as a disinfecting agent, he further increased its efficiency as such by the addition to it of other volatile bactericides, such as benzoic acid, phellandrene (a terpene contained in Australian eucalyptus oil), &c. The resulting combination is patented under the name of Thiocamf. It is a unique, non-poisonous liquid, and although at present rather an expensive preparation for general use as a disinfectant, it has been largely employed as such, particularly, I believe, in the Library of the House of Commons during the influenza epidemic of 1891. For the last two and a half years I have given Thiocamf in a number of cases in which a gastric or an intestinal disinfectant was indicated, and with satisfactory results. It has been well tolerated, which cannot, as Dr. Leonard Williams remarks,[2] be always said of some of the most frequently used intestinal antiseptics. In the treatment of enteric fever Thiocamf, in my experience, is of much value. It appears to clear the tongue, relieve the intestinal distension, diminish the fetor of the fæces, and altogether to influence favourably the general course of the fever. I now prescribe it in gelatine capsules, each of which contains either one minim or two minims of Thiocamf, mixed with about eight minims of olive oil. The capsules may or may not, as required, be coated with keratine. I usually order one capsule three or four times a day. In some gastric cases in which an immediate action on the stomach or its contents is indicated the keratine coating may be dispensed with. Thiocamf is non-toxic. It is, I believe, a powerful germicide; and to this property, as well as to the probability, when given in keratine-coated capsules, of its reaching the intestine in a state in which its *volatility* may have some direct action, I would attribute the good effects of the drug. In addition to the advantages of Thiocamf as an intestinal antiseptic I may state that, as far as I know, the experience of those who have made a trial of it, internally and externally, in such cases as I suggested its employment in my preliminary note on its use, has on the whole been favourable. Satisfactory results have especially been noted when Thiocamf was given as a gastric antiseptic and antifermentative agent, and also when employed locally (in a 4 to 6 per cent. solution in olive oil) as a dressing for ulcers, &c., and as an antiparasitic application in the treatment of diseases of the skin, such as scabies and the tineæ.

I am, Sirs, yours faithfully,

GEORGE F. DUFFEY, M.D. Dubl.,
Physician to the City of Dublin Hospital; Professor of Materia Medica, Royal College of Surgeons in Ireland.
Dublin, Nov. 18th, 1895.

*** Dr. Duffey's letter raises an intricate question in regard to "patent medicines" and medicaments which are "patented." On general grounds it is manifestly inexpedient that the preparation of drugs for internal use should not be open to all chemists.—ED. L.

[1] Dublin Journal of Medical Science, May, 1893.
[2] THE LANCET, Oct. 26th, 1895.

THE LONDON SCHOOL BOARD AND MEDICAL CERTIFICATES.

To the Editors of THE LANCET.

SIRS,—Since the School Board's resolution of May 30th, 1895, to appoint medical men "to examine cases in which the medical certificate produced is considered by the divisional superintendent to be doubtful" was passed, letters from no less than six London hospitals, including four hospitals for children, have, I believe, been sent to inform the board that medical certificates will in future be refused by the staff of such hospitals should the board's resolution be carried into effect. These letters from a large number of experts on the diseases of children, protesting against having the value of their certificates questioned by an ignorant school board superintendent, and possibly upset by medical men who for half-a-crown may be willing to undertake the duty, have been contemptuously ignored by Mr. Sharp of the School Board Attendance Committee.

Putting aside the question of medical etiquette involved (with which, by the way, Mr. Sharp has said the School Board has nothing to do), we may ask whether he and his colleagues are justified in treating the London hospitals with gross ingratitude. For many years the staff of hospitals, and of children's hospitals in particular, have rendered gratuitous and willing services to the School Board, both by keeping away children who might carry various forms of infectious diseases to school, and also by sending children there who but for them would be kept away by their parents. It is admittedly the case that parents will often keep children from school on a false plea of illness, and then when pressed by the board will bring them to the hospitals in hope of getting certificates of unfitness for school. Numbers of certificates for such children are daily refused by hospital physicians and thus the children get sent to school. These services to the board now turn out to be as thankless as they have been gratuitous. As regards children who are kept from school by medical men's orders, Mr. Sharp does not choose to know that a child may be well enough to run the streets and even to pick up a few pence for his poverty-stricken parents, and yet not be well enough to attend school.[1]

A child, according to Mr. Sharp, is a thing which must go to school unless it is ill enough to be kept in bed. The subjects of phlyctenulæ or of eye-strain and frequent torturing headaches; those with weak chests or irritable bladders; incipient choreics who, if neglected, may ruin their hearts and lives—are not within the ken of Mr. Sharp. If not in bed they must go to school, where they may be caned for having chorea, and if incontinent are not allowed to leave in order to obey the calls of nature. Cases of suspected epilepsy must be sent to school at the risk of becoming confirmed epileptics or imbeciles. Even imbeciles are not exempt, for quite recently attempts have been made to force to school a boy aged eleven who does not know that two halfpennies are worth a penny. The early symptoms of over-pressure—sleep disturbed by arithmetical nightmares; babbling of dates and capitals, and screams of fright; the causeless fits of passion or floods of tears; unwonted timidity and general nervousness—which are danger

[1] Report of Attendance Committee, Nov. 8th, 1895.

signals to medical men, have no significance for Mr. Sharp. If the children are able to be in the streets they are able to be at school. Children whose intellects are naturally stunted through ancestral causes must still go to school and be dragged from standard to standard, for Mr. Sharp's educational wine must be poured into brain bottles hereditarily cracked without reference to the result. Worse still are the cases of precocious intellects, which may be wrecked by allowing their possessors to learn too fast. Rich people's children can be protected from this evil, but the children of the poor are denied a similar privilege. They are children, therefore they must go to school.

What is the reason of this zeal on the part of the board? We learn from Mr. Sharp himself that it is purely a question of £ *s. d.* In his report of Nov. 8th he points out that an increase of 1 per cent. in the average of attendances per year means an increase of nearly £4000 in the Imperial grants. Hence it is that the maimed, the halt, the imbecile, and the blind must be forced to school in order to provide the board with money to fritter away on fads and fancies or on the decoration of their stately palace on the Embankment with, for instance, stained-glass portraits of the members. All children are baits for Government grants, and lest the supply should fall short, medical certificates given by competent men are to be rendered valueless at the dictate of school board inspectors. It is not likely that men who may be willing for half-a-crown to become the board's medical servants will run counter to their masters' views and protect children whom they are called upon to condemn. Surely it is time that the voice of the profession generally should be raised against the intolerable persecution of defenceless children and parents by the board in the name of education. The School Board bids fair to become a very Juggernaut.

I am, Sirs, yours faithfully,

Nov. 18th, 1895. HOSPITAL PHYSICIAN.

MEASLES AND THE CLOSING OF SCHOOLS.

To the Editors of THE LANCET.

SIRS,—Will you kindly inform me whether I, as medical officer of health, have the power of closing parish schools for an epidemic of measles, or must it simply be a recommendation on my part?

I am, Sirs, yours faithfully,

A CONSTANT READER,

Nov. 20th, 1895. Medical Officer of Health.

*** The law, as prescribed in the Code of the Education Department as regards all schools receiving an annual Parliamentary grant, is as follows:—"The managers must at once comply with any notice of the sanitary authority of the district in which the school is situated, or any two members thereof, acting *on the advice of the medical officer of health*, requiring them for a specified time, and with a view to preventing the spread of disease, or any danger to health likely to arise from the condition of the school, either to close the school or to exclude any scholars from attendance, but after complying they may appeal to the department if they consider the notice to be unreasonable."—ED. L.

THE BATTLE OF THE CLUBS.

(FROM OUR SPECIAL COMMISSIONER.)

(*Continued from p. 1257.*)

MEDICAL ETHICS AND THE DISPENSARIES AT HULL.

THE friendly societies' dispensary at Hull was founded by eight lodges of the Hull and District Manchester Unity of Oddfellows. These eight lodges put down £1000 for that purpose. There were, however, four other lodges of the same society belonging to the Hull district who refused to take part in the forming of a dispensary. The reason they gave is all-important. They argued that it was against the rules of the Oddfellows' Society to employ the funds of the society for trading purposes. Thus four out of the twelve lodges that compose the Hull district of the Manchester Unity recognised that the opening of a dispensary was a trading enterprise. It is, therefore, at least an open question whether these friendly society dispensaries are not a distinct infringement of the rules of the societies by which they are established. Certainly, if a profit is made out of the services of the medical officers and the sale of the drugs, such dispensaries may well be considered as trading establishments. Perhaps the eight lodges of Hull would have hesitated to embark on such a venture had they foreseen that the four other lodges would not support them. But I was given to understand that financial responsibilities had already been incurred, and the large house in Saville-street, where the dispensary is established, had already been taken. All this occurred some twenty years ago, and several medical men with whom I discussed this matter admitted that some club officers had, by their neglect of club patients, brought upon themselves the creation of the friendly societies' dispensary. One of the leading physicians in Hull eloquently pleaded that the neglect of club patients was very wrong in itself, and that it was also a most short-sighted policy. Certainly it was very difficult to give proper attendance to patients who only paid 2*s.* 6*d.* a year. There would always be a tendency to neglect such patients, particularly if at the same moment there was a call from a private patient who paid proper fees. But, on the other hand, it was quite reasonable to suppose that the club patient, finding himself more or less neglected, would be tempted to join the movement for the creation of dispensaries where the medical officers would be employed by the members of the clubs, paid a fixed salary, and debarred from engaging in private practice. It is of no use to disguise the fact, mentioned to me at Lincoln, and forcibly insisted upon at Hull and elsewhere, that the creation of dispensaries by the friendly societies was a counter move against the club medical officers, who did not treat their club patients with the care and consideration to which they thought themselves entitled. A club officer at Hull told me he knew of clubs that paid their medical men only 2*s.* per annum per member, and he had himself had many members who paid him not more than 2*s.* 6*d.* a year. But—and this struck me as being a very significant declaration—he added that he always sought to impress upon them that they ought to pay more. In the rough and familiar form of argument, which can best be understood by that class of people, he was in the habit of pointing out that they could buy calico for underwear at a little more than 2*d.* a yard; but they all knew it was cheaper in the long run to pay about 4*d.* a yard. Nevertheless, the argument seems to be better appreciated when dealing with calico than with medicine; for the medical man in question had only the other day lost a club appointment because he wanted 3*s.* instead of 2*s.* 6*d.* a year per member. For my part, I could not but think such argument very degrading. The medical profession ought to place itself far above all such commercialism, and the attendance given to a patient should depend wholly and solely on his physical condition and not on the amount he pays. If once medical men lower their profession to the commercial level, then there is no reason why they should not be subjected to the laws of supply and demand and become liable, like other workers, to be ground down to mere starvation wages. The example of the highly educated and refined lady governesses who have so overstocked the market that they cannot earn as good wages as ordinary, uneducated cooks and chambermaids stands before the medical profession. If practitioners are going to compete against each other as to who can run a club at the lowest rate, the rate will soon reach that of starvation wages. Indeed, when I find on calculation that club medical officers give consultations and pay visits at 2*d.* and 3*d.* each, starvation does not seem far off. From all this it is only natural to conclude that great harm has been done by treating club patients hastily and neglectfully because they were only club patients and paid very little. Every conversation I have had on the subject has helped to show that, under all circumstances, the patient must be treated with every possible care and kindness. This is necessary, first and foremost, for the sake of humanity and the honour of the profession, and, secondly, because it is by far the wisest policy. Starting from this basis, club members must be made to pay much higher subscriptions if such practice is accepted as a means of livelihood; but it may be justifiable to accept club practice at a much lower rate of subscription if it be clearly understood that the work is to be undertaken as one of charity. In these cases it is absolutely indispensable to establish a wage limit.

On the other hand, by taking club patients on the principle of giving them only scant attendance in exchange for scant pay, the medical officer discredits himself and his profession and helps to justify the formation of dispensaries by the friendly societies.

The Hull dispensary started by the six lodges of the Oddfellows' Society was very fortunate in the selection of its first medical officer. This gentleman gave great satisfaction to the patients, and consequently the number of members increased rapidly. But still the six lodges were not enough, so it was decided to take in other societies. Any friendly, trade, or other society within a three miles' radius was admitted on the payment to the funds of the dispensary of a sum of not less than 3*s.* per member per annum. Individual members were also admitted on payment of an entrance fee of 6*d.* and an annual subscription of 3*s.* 6*d.* The wives and families of this institution are admitted on the payment of 4*s.* 6*d.* for the wife and 5*s.* for the children, irrespectively of their number, if they are under eighteen years of age. No member, unless he be a widower, is allowed to subscribe for his children unless he also contributes for his wife. Widows whose children are entitled to medical aid at the time of the husband's death are charged only half the usual subscription, and if the mother also dies her orphan children are entitled to medical aid till they attain the age of eighteen years free of all cost. Juvenile branches, however, have been formed, consisting wholly of members under eighteen years of age, and they are only charged 1*s.* 6*d.* per annum per member. Such are the principal conditions of membership. As for the duties of the medical officer, he must have both medical and surgical qualifications and reside at the dispensary, where, however, he lives rent free. He is responsible for the state of the laboratory, surgery, and waiting-rooms, which are situated on the ground floor below his private dwelling; he must keep these places clean and in good order. Then he must submit to the secretary of the dispensary a list of all drugs and medicines required and check all bills. The rules further stipulate "that the medical officer or any other to be appointed shall not engage in private practice, professionally or otherwise, either with or without remuneration, shall devote the whole of his time to the sick members of this institution, and shall provide all necessary surgical instruments." The medical officer has not only to attend to the sick but he must examine all candidates desirous of becoming members of the institution.

Under the first medical officer the income of the dispensary rose to from £600 to £700. What became of this income? The annual income has fluctuated considerably according to the popularity of the medical officer, and I was informed that at one time it fell as low as £350. Doubtless a portion of the money balance has been spent on improvements of the property, and there are the expenses of delegates to congresses &c. But, on the other hand, the committee works gratuitously. The committee consists of one delegate for each hundred members of the different lodges. This makes a very numerous and unwieldy committee. Nevertheless, this committee has been wise enough to augment the salary of the medical officer whenever the number of members subscribing has notably increased. Thus the medical officer participates in the prosperity of the institution. The interest of both the medical officer and of the institution is to increase the number of healthy members and to decrease the drug bill and the prevalence of sickness. No sort of attempt, however, has been made to establish a wage limit. Families in receipt of incomes amounting to several hundred pounds a year are treated at this dispensary for an annual subscription of a few shillings. In some cases expensive drugs have to be employed, such as morphia &c. Some rich members are treated for very trivial ailments, slight indigestion for instance, and want doses of pepsine, which very soon exceed in cost the 3*s.* a year they pay. Counting the cost of attendance actually given to a well-to-do family, members of the dispensary, it was shown that at 2*s.* 6*d.* a visit, medicine included, this would amount for the year to £25; yet this family only paid subscriptions to the amount of 9*s.* 6*d.*, and in this case expensive drugs were necessary. Many other such cases could be given. Indeed, Dr. Cameron, the secretary to the Hull Medical Society, told me he knew many smack-owners who belonged to medical aid clubs, and that, in his opinion, 20 per cent. of the members of such clubs could afford to pay fees. Nor was this a haphazard assertion. Dr. Cameron has been medical officer to many clubs, some of them numbering as many as 1200 members, so that his estimate is based on an extensive experience. It was but a few weeks ago that he refused the post of medical officer to a "female lodge" of a large Benefit Society on the ground that the "whole system tended to defraud the medical practitioner."

At the dispensary of the Hull friendly societies the medical officer enforces a rule which acts as a check upon the wealthier members of the society. He absolutely refuses to see anyone out of his turn. If someone is in a great hurry and asks to pass before his turn he is told it does not concern the medical officer; it is a matter which the patients must settle between themselves, and if anyone wishes to see the medical officer out of his turn he must obtain permission from the others who are waiting and not from him. This is a very good system, and, short of a positive wage limit, nothing would better help to keep rich men away from these dispensaries than their treatment on a strict equality with all the other members. But this is not always done. As already described, very special privileges are given at one town to wealthy members, though they do not pay a penny more than the poor. Then I have made another and very interesting discovery, though I must not betray my informant by stating in what town I was told of the fact. Suffice it to say that it was not at Hull. Originally club practice was a means of establishing a reputation and obtaining private practice. Then the friendly societies combined and opened in a great number of towns dispensaries where they employ medical men at fixed salaries, but on the condition that they shall devote all their time to the dispensary and have no private patients. Now, I have just discovered that private practice is like the traditional lover; you may throw him out of the door, but he will come in again by the window. One club officer, at least, has confessed to the soft impeachment, and I have not the slightest doubt that many others are guilty of the same little failing. Of course they have no private patients, but they privately receive extra fees. Not a few wealthier members of friendly societies desire better attendance, longer consultations, and more elaborate, expensive, and carefully prepared medicaments than can be given in the rough and quick practice of a dispensary. To secure these advantages from the club officer, game, Christmas turkeys, small cases of wine, or even direct fees in money are forthcoming; and thus the dispensary officer can create for himself a sort of private practice, which, however, must be conducted strictly "under the rose." This discovery appeared to me to be highly edifying. It seemed like the triumph of a natural law over the artificial law enacted by the friendly societies' dispensaries. These institutions tell their medical officer that, however much he may distinguish himself, however popular he may become, he shall still continue to give the best of his abilities for an average pay of 2*d.*, 3*d.*, or 4*d.*, as the case may be, per visit or consultation. It is true that the yearly salary may be raised if the society prospers, but this implies more members, more work, and therefore such increase only represents more pay because more work is done; it does not mean better pay. According to the sixteenth annual report of the Friendly Societies' Medical Alliance in 1894 there were 4000 members of the Hull dispensary, and 20,000 medical consultations were given and 7000 visits paid. For these 27,000 consultations the medical officers were paid £208. This sum is equal to 199,680 farthings, which, if divided by 27,000, shows the pay given for the medical service only amounted to a very small fraction above seven farthings per consultation! I am not responsible for these figures, I quote them; they are printed by the friendly societies themselves, and they are evidently too evenly rounded off in thousands to be absolutely accurate; but a farthing more or less added to the average remuneration earned by the medical man per consultation would not in any way affect the principle at issue. The fact remains that the pay is miserably, shamefully insufficient, and it is only natural that medical officers, by hook or by crook, should occasionally obtain more. That they sometimes succeed I have been assured by at least one among them.

Hull, Nov. 12th.

MEDICAL MAGISTRATE.—Dr. Arthur Flint of Westgate-on-Sea, J.P. for the Cinque Ports, has been placed on the Commission of the Peace for the county of Kent, on the nomination of Earl Stanhope, Lord Lieutenant.

MANCHESTER.

(FROM OUR OWN CORRESPONDENT.)

Workhouse Dietaries.

THE Chorlton guardians have been experimenting for about seven months with a view to improve their diet tables. The old people often leave their food for want of a little change, and now it is to be varied by rice pudding and bread pudding. The young men have always had gruel, but are to have tea and bread-and-margarine occasionally, and the children are to have jam and fruit instead of margarine. The old dietary sanctioned by the Local Government Board cost 2*s.* 3*d.* per week for the old men, as against 2*s.* 3¾*d.* for the dietary now recommended. For the old women the cost will be increased from 2*s.* 1¾*d.* to 2*s.* 2¾*d.* For the young men the cost will be reduced from 2*s.* 4¾*d.* to 2*s.* 4¼*d.*, while for the young women it will be raised from 2*s.* 1¾*d.* to 2*s.* 2¼*d.* The chairman said the increase of cost was very little, while the variations in the dietary were considerable. One of the lady guardians said she "had heard the old people particularly say how pleased they were with their new dietary. The health of the inmates was considerably improved by a little variety."

Completion of the Gorton Sewage Scheme.

The purification of the sewage of the watershed of the Mersey and Irwell is slowly progressing. Gorton, with a population of 17,000 to 18,000, is a suburb continuous with Manchester, and until recently the drainage of the district went untreated into Gorton brook and Gore brook. But the Mersey and Irwell Joint Committee served the local board with notice to treat the sewage properly within a given time, and a scheme for so doing was prepared by Messrs. Lomax of Manchester. Land was bought near the Belle Vue Gardens, and the first sod was cut in 1893. The works comprise two detritus tanks with a total capacity of 110,000 gallons, and three precipitating tanks with a combined capacity of 1,079,000 gallons. The sewage on entering the works passes into the sludge or detritus tanks, having first received sufficient ferrozone to throw down the heavier suspended matter. It then flows into the three precipitating tanks, where the lighter suspended matter is deposited. Having thus been clarified, the sewage is conveyed by channels to six polarite filter beds having a superficial area of 2663 square yards, and the effluent at length finds its way into the brook. The works are designed to serve for an increasing population, and are capable of dealing not only with the sewage, but with a half-inch rainfall over the entire area built upon. At some future time it is intended to deal with the sludge deposited in the detritus tanks by means of filter presses, but that will be another undertaking. The present scheme has cost about £40,000. When the public opening took place on the 7th inst. the works had been in operation for three days, and the engineer said that on the previous night over a million gallons of sewage had been dealt with. "The effluent was remarkably clear, but they might yet have some impurities to contend with. If the polarite acted up to its reputation the organic matter would be reduced to a minimum." A gold key was presented to Dr. MacArthur, the chairman of the district council, from Mr. F. Candy, the managing director of the International Sewage and Water Purification Company, whose scheme has been adopted.

Baby Farming in Manchester.

An inquest was held on the 16th inst. on the body of an illegitimate child fifteen months old. The mother had placed the infant in the care of a woman in Hulme about twelve months before, paying 6*s.* a week and seeing the child once a month. This woman put the child into a burial club, but said she knew she would not be entitled to draw the money if the latter died while the mother was living. She had "minded" nine young children, of whom seven were illegitimate. Six out of the seven were insured by her, and three of them had died. She had had two to nurse at one time, and held no licence to nurse illegitimate children. Dr. Ashby, who made a necropsy, said the body was well nourished, but the bones were rickety, and the child died from asphyxia suddenly produced—as in spasm of the glottis. A neighbour gave the woman a good character, but no information was given as to the feeding and general management of the child, or as to the sanitary or insanitary condition of the surroundings. The coroner said it was a dangerous practice to take in illegitimate children without proper authority, because if the medical man had not been satisfied that death had been due to natural causes the jury would have thought it, to say the least, a very suspicious case in view of the deaths of the other children she had had under her care. Whatever blame may attach itself to a girl with an illegitimate child to keep, her position is pitiable, for she can seldom earn her living while the infant is with her; if placed in the hands of one of these women the chances of the child living through infancy are few. Closer inspection and control are needed if the frightful mortality of these waifs is to be reduced.

National Association of Master Plumbers.

The first half-yearly meeting of the above association was held in Manchester the other week, and there was a large attendance of members. The President said that their former gatherings at Leeds and Sheffield had been concerned with the establishment of the association, but that the present meeting would be directed to an effort to remedy the evils long known to exist in their craft. "Science, represented by the medical world, had at last acknowledged that the plumber's work, thoroughly carried out under the guidance and direction of a competent plumber, was one of the most essential requirements for the sake of the public health." It is delightful to see "the craft" concerning which the medical world has often had something to say waking up apparently to a sense of responsibility for the public health. But if the public is to have good plumbing it must be prepared to pay more than the heavy charges it has often borne for bad work, for the address goes on to say: "This recognition had brought forward so much more individual talent with special training and long study as quite entitled *bonâ-fide* master plumbers to be ranked amongst the professions, and entitled them to an equivalent in the increased confidence of the public and an increased remuneration for their work." This sentence seems a little mixed, but evidently the recognition of the fact that plumbing has an important bearing on health is to carry with it an elevation of the social status of the master plumbers, who are to rank with the lawyers, medical men, and divines, and to receive increased pay. At all events it will be satisfactory if from henceforth they prove themselves worthy of the increased confidence of the public. The chief paper read, with the discussion that followed, was intended to prove that corporations ought not to engage in plumbing work, and counsel's opinion was to be taken as to its legality. It appears that the membership of this new association is "spread over fifty-one cities and towns and sixteen branches." After this plumbing will surely cease to be a by-word and a reproach. In the poorer districts of Manchester the "pail system" is still in vogue, but some time since a resolution was passed in the city council in favour of making water carriage universal. The proposition, however, was not well received at a recent town's meeting. The objections were various, cost being one. Much correspondence has appeared in the papers, and in addition to the cost, the great discomfort and inconvenience, to say the least, suffered by numbers during the long frost of last winter from the freezing-up of the waterclosets are brought forward as objections. Large numbers of the new closets are outside, and indeed the smaller houses are seldom adapted to their being placed inside, so that every winter the same trouble may be expected. It seems that the plumbers have not yet outlived their old reputation, for one writer dreads the consequences of the whole city being given over to "the plumber fiend." This is a strong term and no doubt undeserved. The plumber is powerful for good or evil, and it may be hoped that he will in the future always do good and conscientious work even when it is hidden.

Nov. 19th.

NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

The Presence of Visitors in the Operating Theatre.

IN the Durham University Journal attention was recently called to the crowded condition of the area of the operating theatre at the Royal Infirmary, Newcastle-upon-Tyne. It was stated that the students could not in consequence see the operations. Visitors are always most welcome at operations,

and it is to be hoped they always will be so; but there should be no crowding round the table so as to obstruct the view of those who occupy the benches or to inconvenience the operator. It would seem hardly necessary to add that neither visitors nor anyone else should carry on an irrelevant or other conversation during a surgical operation, or in tones sufficiently audible to be heard by the surgeon make remarks of any kind upon the steps of the operation, or describe what has been done on similar occasions by some one else. Silence is asked for during operations, and surely those senior members of the profession privileged to occupy the area should strictly observe the regulation. Example is better than precept, and silence cannot be looked for from young and eager students if a bad example is set them by those older than themselves, who ought to know better.

Drink and Crime.

In charging the grand jury on Monday at Newcastle-upon-Tyne Mr. Justice Grantham said he "doubted very much if there was any city in England with the population of Newcastle which at the present time could present such a clean bill of health to one of Her Majesty's judges when he came down for the purpose of assisting them in the administration of justice. He could not suppose, of course, that Newcastle was free from the vice of intemperance entirely, but it certainly did speak a great deal for the temperate character of the people that no crime which had its origin in drink was to be brought before them." The late Mayor of Newcastle published statistics showing that for its size Newcastle was the most drunken city in England, and these statistics have never been shown to be incorrect. Most people who have gone into the question tell us that drink is the great cause of crime, and there can be no doubt whatever that drink is a great demoralising influence; but is it the chief cause of crime? If so, Liverpool should be ten times more drunken than Newcastle, for there Mr. Justice Collins has to try seven cases of murder and eight cases of manslaughter, while here there are only three criminal cases to be tried—a burglary, a larceny, and an offence under the Criminal Law Amendment Act.

Newcastle-upon-Tyne, Nov. 18th.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

Edinburgh Royal Infirmary.

AT the meeting of managers of the Royal Infirmary on Monday the treasurer submitted a statement of the income for the financial year which ended on Sept. 30th. The ordinary income amounted to £31,086, showing an increase of £1400 over the preceding year. The various increases and decreases were specified and satisfaction was expressed that the church collections had increased as the result of the special appeal made to the various ecclesiastical bodies. The average number of patients in hospital had been 711. There had been a considerable decrease in expenditure in several directions, mainly in various articles of food, but also in dressings and medical appliances.

University College, Dundee, and St. Andrews University.

At a meeting of the council of University College, Dundee, held this week, the question of the future relations of the College to St. Andrews University was discussed. It was decided to write to Her Majesty's Commissioners pointing out that the original agreement, which had been submitted to, and approved of by, all the interested parties, and which had been adopted after careful consideration on both sides, had always been regarded by, the College authorities as just and fair. The council were willing to consider any suggestion which might be made by the Commissioners with a view to remove the difficulties which at present existed between the two bodies, and they were prepared to meet the Commissioners or the University Court to discuss anew any proposals which might form the basis of a new agreement.

Stirling Royal Infirmary.

The annual meeting of the subscribers to this institution was held this week. The report showed that the number of in-patients during the year had been 282. The income had been £1106, and the expenditure £1173.

The Edinburgh Obstetrical Society.

This society held its first meeting for the session 1895–96 on Wednesday of last week. Dr. Barbour gave a short valedictory address, and some other communications followed. Dr. Ballantyne (Dalkeith) was elected President in succession to Dr. Barbour.

Notification of Infectious Diseases Act.

An action of a somewhat unusual character has recently been brought against Dr. James Stewart of Maryhill, Glasgow. The pursuer alleged that when he was lying ill in a public lodging-house suffering from pneumonia and under the care of another medical man Dr. Stewart became aware of his illness and notified to the sanitary authorities that he was suffering from small-pox. As a result of this he was removed to Knightswood Hospital, where, he contends, he acquired typhus fever. For the loss of time and personal annoyance and risk he claimed the sum of £200 as damages against Dr. Stewart. The sheriff, however, has dismissed the action without allowing it to go to proof. His lordship remarks that no malice is alleged by the pursuer, and contends that any member of the public, whether a medical man or not, is entitled to give information to the authorities of the existence of any case of infectious disease. The position of the public towards such cases is, according to the sheriff, the same as their relation to any criminal offence. For these and other reasons he decides that the pursuer, even on his own statement, has no valid ground of action against Dr. Stewart. The action having terminated in this fashion, the defender had no opportunity of stating his own position. In a letter in the public prints Dr. Stewart explains that he received a request to call at the lodging-house, where he found the pursuer suffering from typhus fever, and he at once notified the case. The patient was removed to hospital, where at first he was regarded as suffering from malignant small-pox; afterwards, however, the disease was recognised as typhus fever. Dr. Stewart is naturally indignant at the absurd suggestion that he obtruded himself upon the patient for the sake of the small statutory fee payable by the local authorities.

Stranraer Cottage Hospital.

The usefulness of this institution has now been demonstrated by a three years' experience, and the annual report for the present year gives a favourable account of the condition of the hospital from all points of view. The financial statement shows a balance on the right side of the account. Sir Mark Stewart, M.P., is the President of the Hospital Committee.

Medical Preliminary Examination in the Scottish Universities.

The Joint Board of Examiners for the Scottish Universities have issued a statistical report showing the passes and failures in the recent preliminary examinations in arts, science, and medicine in the four universities. The results of the medical preliminary examination are as follows: In Edinburgh University, of 128 candidates 72 passed and 56 failed; in Glasgow University there were 41 passes out of 92 candidates; in Aberdeen University, of 26 candidates 14 proved successful; and in St. Andrews University the entrants numbered 7, of whom 4 passed.

Bacteriological Laboratory in Glasgow.

The health committee of the town council has decided to establish and equip a complete bacteriological department in the sanitary buildings now in course of erection. The laboratory is to be in charge of an expert in bacteriology.

Greenock Eye Infirmary.

At the annual meeting of the trustees on the 14th inst. Dr. Cluckie reported that there had been 3151 patients during the year, an increase over last year of 307. This number included 185 in-patients. Dr. Cluckie expressed the opinion that the eyes of school children were often overtaxed and complained of the action of the School Board officials in bringing pressure to bear on children to attend school when rest had been ordered by the medical adviser. The report by Dr. Robert Fullarton showed a record of 127 cases of diseases of the throat, 71 cases of diseases of the nose, and 542 cases of ear disease. The treasurer's statement for the year gives a balance of £40 in favour of the hospital, the total income being £810 8*s.* 9*d.*

Outbreak of Swine Fever.

A somewhat serious outbreak of swine fever has occurred in the neighbourhood of Greenock. At the instance of an inspector from the Board of Agriculture eighty pigs have been destroyed in one district and sixty in another. It is to be hoped that these vigorous measures will have stamped out the disease.

Edinburgh Royal Medical Society.

The following gentlemen were elected office bearers: Presi-

dents: J. E. Bowes, M.B., C.M.; W. M. Taylor, M.B., C.M.; Kenneth Maclean, M.B., C.M.; H. J. F. Simson, M.B., C.M. Secretaries: J. Brunton Blaikie and Scott Carmichael, M.B., C.M. Chairman of Finance Committee: Edwin Bramwell. Curator of Library: Henry Fowler. Curator of Museum: T. Anderson. Chairman of Public Business Committee: W. T. Ritchie. Editor of Transactions: W. A. G. Alexander, M.B., C.M. Treasurer: J. R. Young. Sub-librarian: A. P. Ormiston.

Nov. 20th.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

The Regius Professorship of Surgery at Dublin University.

THE appointment of a successor to the late Sir George Porter as Regius Professor of Surgery was delayed for a very long time owing to the fact that the two candidates, Sir William Stokes and Dr. Charles Ball, had each received an equal number of votes from the eight members of the Trinity College Board. The question was referred to the Academic Council, who declared in favour of Dr. Ball, cancelling the objection to his nomination, which had been made on the ground that he filled the office of University Anatomist. The Board met again on Saturday, the 16th, and settled the matter at last by electing Dr. Charles B. Ball Regius Professor of Surgery. Much interest was taken in the result of this election for many reasons, including the fact that the appointment of Sir William Stokes would have entailed his resignation of the Professorship of Surgery at the Royal College of Surgeons, for which last position there would have been many applicants.

The late Dr. Edward Kough.

The death of Dr. Edward Kough, which took place on the 10th inst. at his residence, Albany-grove, Monkstown, is fully recognised as a serious calamity, not alone to society in the district in which he lived, but also to the general public of Monkstown and Blackroch. Dr. Kough, who was a graduate, scholar, and M.A. of the Dublin University, practised originally at Windlesham, Surrey, but has for some years resided near Dublin, filling the position of vice-chairman of the Commission of the Blackroch township. His funeral, which took place on the 14th inst., was very largely attended.

Dublin University Experimental Science Association.

Mr. A. C. O'Sullivan, M.A., F.T.C.D., the recently appointed University Lecturer on Pathology, delivered the opening address at the inaugural meeting of the association held on Monday evening, the 11th inst., the Provost occupying the chair. He chose as his subject "Scientific Education" and in a short paper advocated strongly the importance of early training in practical experimental work as distinguished from training by books.

Mater Misericordiæ Hospital.

The metal anastomosis button introduced into surgery by Dr. Murphy of Chicago has not apparently commended itself very highly to Dublin surgeons, for although Dr. Murphy was good enough to demonstrate its action on the dead subject here during the summer, no case in which it has been employed has as yet been reported in Ireland. The following note is therefore of interest. A delicate woman aged fifty-five was recently admitted to the Mater Misericordiæ Hospital under the care of Mr. Coppinger suffering from pain and tumour in the right iliac region. An exploratory incision was made and the presence of a narrow stricture at the commencement of the ascending colon discovered. On account of the patient's general condition immediate excision of the diseased intestine was considered inadvisable. On the other hand, the obstruction being situated beyond the ilio-cæcal valve rendered the case an apparently suitable one for the use of some rapid method of relieving the symptoms. A button of large size and constructed of aluminium was accordingly employed, and a lateral anastomosis of the ileum with the transverse colon established without difficulty or delay. The operation took place on Tuesday, the 12th; there was no subsequent shock or elevation of temperature, and the patient now seems well and expresses herself as much relieved. The bowel has been emptied twice, but there has been no appearance of the button up to this (the eighth) day. The case is novel and interesting, for as the intestine was not closed the button may unfortunately drop back into the ascending colon and become engaged in the stricture at its commencement or may pass into the ileum and be thus carried to the stricture.

Belfast Royal Hospital.

The annual meeting of the supporters of the Belfast Royal Hospital was held on Monday, Nov. 18th. From the report I learn that the number of patients treated in the hospital during the year amounted to 2655, while during the same period there were 22,956 extern patients. The expenditure for the year has been £9073 18*s.* 6*d.*, and the receipts £8731 16*s.* 8*d.* The expenditure has, therefore, exceeded the receipts by £342 1*s.* 10*d.*, but as there was a balance in favour of the hospital at the end of the preceding year the actual debt at the end of this year is £142 4*s.* 10*d.* Attention is again called to the increase in the subscriptions of the working classes. From the medical and surgical staff report I learn that of the cases admitted into the wards 968 were medical and 1097 surgical, while in the extern department 4881 were medical and 16,173 surgical. One hundred and thirty-eight students attended in the wards for clinical instruction during the winter and one hundred and ten during the summer session. Special reference was made at the meeting to the great loss sustained by the hospital by the death of Dr. Ross. One of the speakers drew attention to the fact that the item of wines and spirits and aerated waters in their expenditure was £137 19*s.* 8*d.*, and that the sum spent in medicine and instruments was £1108, or, in other words, that the cost of wines, spirits, and aerated waters amounted to one-eighth, or 2*s.* 6*d.* in the £, of that of medicines and instruments. The secretary of the medical staff, in reply, stated that in round numbers about £100 was spent in spirits and wine, and he believed that was the smallest sum spent in that way by any hospital, taking the numbers into account, in the United Kingdom. The sum was gradually diminishing; thus, in the previous year it was £150, and when he joined the staff first the stimulants cost £435 per annum. The actual amount spent in aerated waters, whisky, wine, beer, and everything of that kind amounted to about ½*d.* per day per patient in that institution. Stimulants were used only in critical and severe cases.

Belfast Medical Students' Association.

At the first general meeting of this society, held on Nov. 15th, Dr. Donnan, who was in the chair, suggested that a letter of sympathy should be sent to Mrs. Ross in reference to the death of her husband, Dr. Ross. This was unanimously approved of. The following officers were elected for this session:—President: Dr. Magowan. Vice-presidents: Dr. Drummond, Dr. Fullerton, and Dr. Donnan. Hon. Secretary: W. A. Rice, B.A. Assistant Secretary: R. Hilton. Treasurer: O. E. McCutcheon, B.A. Committee: J. McCully, A. B. McMaster, M. L. Rowan, G. Stevenson, Miss Collier, R. J. Johnstone, B.A., A. Knight, D. Brown, Miss Tate, and G. Anderson.

Changes in the Belfast Royal Hospital Staff.

The death of Dr. Ross, senior physician to the Belfast Royal Hospital, will occasion considerable changes in the staff. Dr. Strafford Smith will have no opposition in being promoted from the assistant physicianship, and it is thought Dr. W. Calwell, who for the past two years has discharged most effectively and to the entire satisfaction of the whole staff the duties of registrar, will be appointed assistant physician. There will be a good many candidates for the registrarship—a post which is in the gift of the staff.

Lunatics in the Newry Workhouse.

At a meeting of the Newry guardians, held on Nov. 16th, a report was read from Mr. O'Farrel, Inspector of Lunatics and Commissioner of Control, Dublin, in reference to his inspection of the workhouse on Nov. 2nd, 1895, in which he states that the greatest blot on the arrangements is the survival of those cold and cheerless idiot cells, which have been repeatedly condemned since 1843. Any patient, the inspector says, who needs a separate cell is not a fit subject for detention in a workhouse, and he or she should be removed, not as a dangerous lunatic, but on a house form to the lunatic asylum of the district. As this question of the suitability of workhouses for the treatment of lunatics is so constantly being discussed at present it is felt by many that a commission should be appointed to inquire into the whole matter.

Nov. 23rd.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

The late Dr. Dujardin-Beaumetz's Laboratory.

THE therapeutical laboratory attached to the wards of the above-named distinguished therapeutist will, at the request of Dr. Albert Robin, be forthwith transferred from the Hôpital Cochin to the Hôpital de la Pitié. This transference includes the annual subvention of 2000 francs allowed by the Municipal Council.

The Diagnosis of Infectious Diseases.

The Municipal Council of Paris has decreed that the diagnosis of diseases caused by the invasion of known micro-organisms shall henceforth be undertaken by the bacteriological laboratory of the city, any practitioner plying his art in the capital or in the Department of the Seine being entitled to send specimens for the purpose.

The Weight Development of Prematurely Born Children.

In a thesis for the M.D. degree of the Paris Faculty (July, 1895) Dr. Potel supplies some instructive information on this subject. His researches bear upon 173 infants, born between the periods of six and a half to eight months of gestation, and who left the Paris Maternity alive and well after an average sojourn for the six-and-a-half month children of eighty-two days and for the eight-month children of twenty-eight days. Of the fifty-six children born at six months and a half eleven survived (mortality 80·4 per cent.). The average daily gain in weight was 9·4 grammes. Of 131 infants born at seven months 41·9 per cent. survived, the average daily gain of weight being 11·5 grammes. Of 53 children born at seven months and a half 69·9 per cent. survived, and the average daily gain of body weight was 13·8 grammes. Finally, of 110 children born at eight months 64·5 per cent. survived, and the average daily weight-gain was 22·8 grammes. The following table shows the average body weight at birth :—

1408	grammes	at 6½	months.
1700	,,	,, 7	,,
1900	,,	,, 7½	,,
2150	,,	,, 8	,,

The loss in weight during the first three days of extra-uterine existence is not more marked than in infants born at term, but it constitutes a serious event in these prematurely-born beings, for restoration to the original weight is a more prolonged business, and it is precisely during this period that the mortality is the heaviest. The offspring of parents free from hereditary taint are, however, more resisting. The gain in weight begins later and proceeds at a slower pace the more prematurely the child is born. Thus in six-and-a-half-month children a gain in weight is frequently noted only after the first fortnight. The nearer to full term the infant is born the closer does the progress in weight approach that of the normal child. The artificial means employed to sustain vitality in the prematurely born—incubators, sterilised milk, "gavage"—enables us to save many a life.

Foreign Students and the Paris Faculty.

The *Bulletin Médical* is responsible for a piece of information that will prove unpleasant reading to foreign students who, wishing to begin their medical curriculum at the Paris Faculty without having to pass the examinations for the *baccalauréat* (these being the equivalent of our preliminary or matriculation examinations) ask for the *équivalence*, or, in other words, to be excused the *baccalauréat*. It is notorious that many foreigners—principally Russians, Roumanians, and Greeks—have hitherto been granted the *équivalence* on the strength of having undergone in their own country examinations in general education which cannot compare as a test with the French *baccalauréat*. A special commission appointed some months ago by the Minister of Public Instruction has just reported on the question. All students asking for the coveted *équivalence* have accordingly been told that this indulgence can only be granted in view of their extra curriculum being pursued at a provincial faculty. Interviewed on the subject, Professor Brouardel, the Dean of the Paris Faculty, is said to have remarked that such an extreme measure has been forced on the authorities by circumstances. He states that the faculty is organised for the education of only 3000 students, whereas the number of students is actually 6300, of whom a fifth last year were foreigners. Subjects for dissection are becoming scarce, and overcrowding is interfering materially with the efficiency of the teaching. In the interest of native students the measure just taken was inevitable. The new regulation means that any Englishman or other foreigner unprovided with a diploma in medicine who may be desirous of studying in the Paris Faculty must, despite his matriculation or preliminary examinations passed in his native country, either obtain his *baccalauréat* or be content to pursue his studies at a provincial faculty.

Nov. 19th.

VIENNA.

(FROM OUR OWN CORRESPONDENT.)

The Etiology of Paralysis.

AN interesting lecture on the Etiology of Paralysis was delivered by Dr. Hirschl at a meeting of the Society for the Study of Neurology and Mental Diseases. His observations were made on 200 cases, in 50 per cent. of which the existence of syphilis was ascertained, in 25 per cent. it was regarded as probable, in 12 cases there were objective symptoms of syphilis, and in 19 per cent. the exciting cause was not discernible. 175 men affected with paralysis procreated 233 living children, of whom 154 died at an early age; the wives miscarried 106 times. The uniformity of the appearances of the disease, which was represented by diffuse interstitial encephalitis and by peri-encephalitis, suggested an etiological connexion, and the fact that all factors except syphilis were excluded pointed to syphilis as being the primary cause. Dr. Hirschl laid much stress upon the anatomical conditions in paralysis and their relation to the pathology of syphilis. The anatomical lesion of paralysis is, as a rule, described as cortical encephalitis beginning with chronic atrophy of the cortex. Some symptoms of paralysis occur only in tabes, a disease which is of syphilitic origin. Immobility of the pupils is a symptom met with after syphilis of the brain, and may also be observed in paralysis and in atrophy of the optic nerve. In some cases mercurial treatment produces an improvement. Paralysis is, therefore, a result of syphilis just as gumma is, and the occurrence of paralysis in children without antecedent primary disease resembles the occurrence of tertiary symptoms without antecedent primary and secondary manifestations.

The Sanitary Report for 1892.

According to the report of the Statistical Commission the number of Austrian hospitals in 1892 amounted to 625, with 38,496 beds, and 371,811 patients were admitted. Of these, 85·9 per cent. were discharged recovered or improved, 5·1 per cent. were incurable, and 9 per cent. died. The report mentions 27,892 cases of syphilis and 18,879 cases of tuberculosis. In twenty-eight public and six private lunatic asylums there were 17,936 patients in 1892, against 16,583 in 1891. Of these, 8·2 per cent. recovered, 19·8 per cent. were incurable, and 10·1 per cent. died; 14·2 per cent. suffered from mania, 10·7 per cent. from melancholia, 30 per cent. from paranoia, 26·6 per cent. from idiocy, 10·6 per cent. from mental disorder with paralysis, and 7·9 per cent. from mental disorder with epilepsy; 56·4 per cent. were unmarried, 36 per cent. married, and 7·6 per cent. widowed. As to religion, 92·4 per cent. were Roman Catholics, 1·8 per cent. Protestants, and 4·9 per cent. Jews. 10,013 children were admitted to the foundling hospitals, and of these 6·02 per cent. died. There were 1543 persons in seventeen asylums for the deaf and dumb. The number of institutions for the blind amounted to ten, with 795 inmates, of whom 14·9 per cent. had been born blind. Cretins numbered 17,541. For each 100,000 of the population there are 78 lunatics, 119 deaf-mutes, 66 blind persons, and 74 cretins. The report also mentions 239 bathing institutions, which have been resorted to by 250,692 persons. There were 4082 qualified and 2472 unqualified medical practitioners and 1531 surgeons of the old school. There were 3042 deaths per 100,000 of the population, the highest mortality having been registered in Galicia. Of 100,000 cases of death, 26 resulted from small-pox, 38 from measles, 58 from scarlet fever, 57 from enteric fever, 77 from dysentery, 72 from whooping-cough, and 120

from diphtheria. Cholera caused 125 deaths, of which 120 occurred in Galicia, 3 in Lower Austria, and 2 in Styria.

Dissolution of the Municipality of Vienna.

Dr. Lueger, the famous leader of the Anti-Jewish Party, who, as I have already reported, was elected mayor, has not been acknowledged by the Crown. A second election having yielded the same result, the Government dissolved the municipality and appointed an official to administer its functions. Among the medical profession this fact has caused general satisfaction, Dr. Lueger, who is a lawyer, being very unfavourably disposed towards medical men, in proof of which I may quote his well-known saying: "Any woman who gathers herbs is to be preferred to the medical men, for they poison people with drugs."

The Relation between Recent Syphilis and Jaundice.

Professor Neumann has contributed to the *Medicinische Presse* an article on the occurrence of jaundice in cases of recent syphilis. French authors, such as Gubler, have supposed jaundice appearing in recent syphilis to be due to an exanthem of the intestine and the biliary passages. During the last three years Professor Neumann has observed fourteen cases; in eight of them jaundice and exanthem occurred at the same time, and in three cases after the eruption. One of these patients died, and post-mortem examination showed numerous prominences of a yellowish colour on the surface of the liver: the peripheral parts of the lobules were green, and the central parts reddish. He believed jaundice in these cases to be due to changes in the wall of the vessels.

Medical Advertising.

Last week the Medical Chamber summoned before it the gentlemen who continue their advertising in the lay press in spite of the fact that it has been declared dishonourable in a professional sense. Seventeen delinquents attended in response to the summons and were reprimanded by the president, but appealed to the Government, which will now decide the question.

Cholera in Galicia.

During last week 66 cases of cholera with 41 deaths were reported from the districts of Czortkow, Husiatyn, Kamionka, Trembowla, and Tarnopol, making a total of 303 cases with 192 deaths since the commencement of the outbreak. In the preceding week there were 57 cases and 32 deaths.

Nov. 17th.

ROME.

(FROM OUR OWN CORRESPONDENT.)

An Academico-Clinical Odyssey.

DR. BACCELLI, in his capacity of Minister of Public Instruction, has just made a tour of some of the minor seats of learning in the Peninsula, beginning with Ravenna, which, though not an academic town, is in its monuments and its Biblioteca Classense full of academic interest, and thence proceeding to Ferrara and Modena, at both of which universities he made a minute examination of their teaching, particularly their clinical resources, and addressed their professorial and undergraduate *personnel* in words of hope and encouragement. His countrymen delight to regard his Excellency as an ideal Education Minister, for not only are his attainments of the highest academic order, extending to an enlightened love of the classics, but he interests himself in fine art and in physical development, and, as a primary condition of all healthy and sound work, in the hygienic amelioration of school and college, private dwelling and public institution. At Ravenna he had much of practical advice to give as to its water-supply and the *risanamento* of its neighbourhood; at Ferrara he had not only to expatiate on the sanitary defects of the sombre mediæval town, but also on the rehabilitation of the University and the reinforcement of its teaching power, while at Modena an inspection of the backward state of the laboratories and clinical wards drew from him a promise to enlist Government support in their behalf. "Minor seats of learning" these historic capitals doubtless are, but they are not on that account without their honourable record in the annals of the healing art, and Dr. Baccelli was able, from his great command of medical history, to enumerate their contributions to the common fund of professional knowledge. Modena, for example, could boast of the epoch-making Francesco Torti, whose classic work on "Febres Perniciosse" was the first to put their description and therapeutics on a rational and truly Hippocratic basis. It was through him that cinchona bark in malaria scored its first decisive victory. Other names (Ramazzini, for instance) were given by Modena to medicine, and yet more hardly less distinguished might still be added if the resources of the school were equal to the educational demands on them. But this is a perennial subject of complaint in Italy, by no one more eloquently set forth than by Professor Angelo Celli, whose inaugural address at the opening of our academic year put in striking relief the inferiority of even the Roman school to the humblest of its class in the English provinces.

A Touching Tribute to the "Martyr Nurse."

Readers of THE LANCET of Nov. 24th, 1894, can hardly have forgotten the thrill of horror with which, just a year ago, the assassination of Suor Agostina in the Santo Spirito was received. On the 13th inst. a tablet was unveiled in her memory in the Cappella del Crocefisso in the church attached to the hospital. It is surmounted by a medallion presenting a finely modelled bust in bas-relief of the Sister, and bears the following inscription:—

D. O. M.
A Maria Agostina
Suora di Carità di S. Vincenzo De Paoli
Angelo d'Innocenza, di pietà, d'amore
La cui vita fu tutto un sacrifizio
La cui morte un martirio
Uccisa per odio al sacro abito
Con sette pugnalate da mano assassina
Nell'Ospedale di S. Spirito in Sassia
Il dì 13 Novembre 1894
Da tutta Roma compianta
Seguita da immenso popolo alla tomba
Il comitato parrocchiale di S. Pietro
in Vaticano
a perenne memoria della martire
della carità, del dovere
P.

(To God Allgood and Almighty. To Maria Agostina, sister of Charity of Saint Vincent De Paul, an angel of innocence, of piety, of love, whose life was all one sacrifice, whose death was a martyrdom, slain as she was, through hatred to the holy uniform, with seven stabs by a murderer's hand, in the hospital of the S. Spirito in Sassia, 13th November, 1894, lamented by universal Rome, followed by an immense crowd to the grave, the parochial committee of S. Peter on the Vatican have placed this monument to the undying memory of the martyr to love and duty.) This admirable specimen of epigraphy, showing as it does how modern Italian lends itself almost as felicitously as ancient Latin to the literature of "storied urn and animated bust," sins in one particular and one only, in its reference to the object that directed the "mano assassina." That object was not "odio al sacro abito" (hatred to the holy uniform), but, as THE LANCET pointed out at the time, resentment on the part of the murderer (Romanelli) against the sister for having reported him for bad conduct. The Padre Ronzina, who composed the inscription in the presence of the whole *personnel* of the hospital, including all the nuns directly or indirectly employed in it, and who acted as spokesman at the unveiling, cannot but have been misinformed of the circumstances under which Suor Agostina was done to death.

EGYPT.

(FROM OUR OWN CORRESPONDENT.)

Cholera Intelligence.

DURING the past seven days there have been 83 new cases admitted into the twelve ambulance hospitals, while the deaths have numbered 72 in hospitals and 85 in private houses in the villages. The ignorant peasants have a rooted objection to the fresh air and cleanliness of hospital huts under English superintendence, and do their best to hide their sick and make difficult all sanitary measures. Five cases have been reported from one newly attacked hamlet of 300 inhabitants, the first case having been imported from a neighbouring village where cholera existed for a fortnight, but is now apparently no longer present. The disease has also appeared in a village half-way between Damietta and Mansoura, probably from being in free intercourse by canal

with an infected village. Three fresh importations have taken place at the inspection stations outside Mansoura. But in spite of these new attacks the disease is still confined to the same districts as before, and the measures for dealing with it when discovered continue, so far, to be wonderfully successful, and the disease is still about 100 miles distant from Cairo. Some experiments have been made by Dr. Kauffmann to test the virulence of this comma bacillus. In the first series the guinea-pigs became slightly ill after being injected, but did not die. Since then a guinea-pig has been injected with an extra-strong culture, prepared with unusual care, and he died in twenty hours.

Precautions in Infected Districts.

Sixteen inspection stations on the Nile and on the principal canals are now in very good working order and are yielding excellent results. Besides these there are eighteen medical inspection stations for land traffic dotted about the various villages. All travellers from the infected area are still examined at their destination by a medical man specially told off for this purpose, and then they are visited for the five ensuing days at their new address in order to be certain that they remain in good health. The bulk of the sanitary *personnel* is in the infected area, but, of course, if the disease spreads to any of the chief towns, such as Mansoura or Zagazig, some change will have to be made and a fresh disposition of the forces may be required. The native officials are all quite willing to work, but are incapable of initiating any reform, though they can be made to do excellent work by any energetic Englishman who understands their incapacity and their language. It is significant that we hear nothing just now of the unpopularity of the English in Egypt. On the contrary, seven millions of people are content to look on and do nothing, while less than a dozen Englishmen are wrestling to keep them free from cholera.

General Precautions in Egypt.

The tourists who are already coming here in considerable numbers will find this country preternaturally clean this winter, for during the last month a general scavenging and whitewashing have taken place, and every Mudir has trembled in his shoes lest his province should be weighed in the balance of hygiene and be found wanting. Especial attention has naturally been paid to the chief towns of the Delta, but in Cairo itself a sanitary commission has been working hard to deal with all matters of pressing need. The streets have never been so clean before, and the sweepings, instead of being thrown into a disused canal which may some day be built upon, are now taken outside the town to fill up a large pond. The water company has undertaken to put up hydrants for the supply of pure water gratis in the poorest quarters, such as Boulak and Old Cairo, where cholera would be most likely to appear. Sites are being chosen for much-needed public latrines, and many smaller improvements have been already effected. Any true sanitarian, of course, wishes his work to be permanent, but it is the tendency of the financial official mind to lavish money when in presence of an epidemic, but to jealously tighten the purse-strings the moment the danger no longer threatens. The municipality of Alexandria has voted £4000 for the sanitation of the city, and £300 have been granted to improve the laboratory of the sanitary inspector, who is now building a house for the installation of his zoological pets, and arranging rooms for micro-photography. The city has been very well cleaned superficially, and an artesian well is being sunk, 100 ft. deep, for supplying gratis water to the poor.

Water-supply.

A concession for the supply of water to the three important towns of Tantah, Zagazig, and Mansoura has been given by the Government to a rich company, who have already found most excellent soft water by a boring 100 ft. deep on an estate of thirty-five acres outside the town of Tantah. From this free fountains are now running for two hours a day.

Quarantine against Egypt.

It is felt here that visitors will be kept away not so much by the fear of cholera as by the dread that they may not be able to leave this country when they wish to do so. At present there is no quarantine against Egypt in any country excepting Greece.

Cairo, Nov. 13th.

AUSTRALIA.

(FROM OUR OWN CORRESPONDENT.)

Further Developments in the "Dean Case."

CONSIDERABLE sensation has been caused by recent proceedings in connexion with the remarkable case of alleged poisoning at Sydney, a summary of which was given in THE LANCET of Aug. 17th last. In answer to a question in the Legislative Council, the Attorney-General said that Sir Julian Salomons, counsel for the prosecution in the case, had informed him that Mr. Meagher, solicitor for the defence, had admitted that he knew absolutely that Dean was guilty, as the latter had confessed that he had administered both arsenic and strychnine together to make more certain of poisoning his wife, and that the druggist who sold the poisons had never been asked, although he gave evidence, whether he sold the poisons. Mr. Meagher vehemently denies that he made any such admission to Sir Julian Salomons, whom he accuses of mental aberration, while his partner more than insinuates that the whole story is a pure invention. All the principals in the affair are prominent politicians, and, with a view probably of removing the case from the political sphere, the last development is that Dean and his solicitors, Messrs. Meagher and Crick, have been arrested on a charge of conspiring to defeat the ends of justice.

Dispute at the Adelaide Hospital.

For some months past the columns of the Adelaide papers have been deluged with correspondence and articles on a comparatively trivial dispute about a nurse's appointment at the Adelaide Hospital. About eight months ago the board of management made an appointment to the post of night superintendent of nurses on the recommendation of Dr. Perks, the medical superintendent, who said that a Miss Gordon was the only nurse in the hospital suitable for the position. This opinion was intended by the superintendent to be confidential, but it got into the press, and also a statement that the lady recommended was a relative of a public official, whose sanction to any appointment or dismissal by the board is required. The nurses complained to the board in somewhat forcible and ill-advised terms; the press took the matter up and clamoured for an independent inquiry, and finally a Royal Commission was appointed. In the meantime the nurses themselves, with two exceptions, withdrew from their position and apologised to the board, Dr. Perks giving the assurance that no reflection was cast on their capabilities. The Commission practically exonerated everyone, and suggested a *status quo ante*. The board, however, declined to reinstate the two nurses who had not apologised, as that would be subversive of discipline. However, the board had to submit in the case of one of them, as her suspension had not been sanctioned by the Chief Secretary. On the other hand, as the other nurse's appointment had never been confirmed by the Chief Secretary the board declined to reappoint her. So the matter stands, and will probably end. A special meeting of the South Australian Branch of the British Medical Association was held recently to consider the position, and it was unanimously resolved that the meeting entirely approved of the attitude adopted by the board of management during the recent trouble with the nursing staff; and placed on record its high appreciation of the valuable services of Dr. Perks in his position as medical superintendent, and its strongest sympathy with him in the gross and unfounded charges made against him in the evidence of certain witnesses before the Royal Commission.

Election of the Staff of the Women's Hospital, Melbourne.

The medical staff of the Women's Hospital is elected every four years by the subscribers to the hospital on the same plan as in the case of the Melbourne Hospital, the election taking place a month subsequently. The election does not create so much public interest, however, and is conducted more quietly. On this occasion some new offices were competed for. Many years ago the institution was essentially a lying-in hospital, and was so designated, and the staff consisted of four honorary medical officers and a resident officer. Out-patients suffering from pelvic disease, however, were seen, and a few beds were reserved for such cases. With the progress of gynæcology more and more cases of diseases peculiar to women were found to demand operative treatment as

in-patients, and the hospital was enlarged by building a practically new hospital in the same grounds, devoted solely to midwifery cases. A new staff, honorary and resident, was elected to take charge of the midwifery department, the old staff retaining charge of what was now termed the infirmary department of the Women's Hospital. The latter department has again been found inadequate, and a new wing is in process of construction, and four new positions of out-patient surgeons have been made, with a view of lightening the work of the in-patient staff. The result of the election held on Sept. 30th was as follows:—

INFIRMARY DEPARTMENT.

Dr. O'Sullivan	851	Mr. Dunbar Hooper	749
Dr. Adam	845	Dr. Rowan	534
Dr. F. Meyer	834		

MIDWIFERY DEPARTMENT.

Dr. Mackay	730	Dr. Loosli	549
Dr. Downie	631	Dr. Martell	489
Dr. Nyulasy	589	Mr. Branson	371
Mr. Cuscaden	563	Mr. Wheeler	360

FOR OUT-PATIENTS.

Mr. Morton	870	Dr. Joske	396
Dr. Horne	858	Mr. Lynch	390
Mr. Anderson	722	Mr. Clayton	352
Mr. Fetherston	697		

The first four were elected in each case.

Laparotomy for Intussusception in very young Children.

In a paper read before the New South Wales Branch of the British Medical Association Mr. C. P. B. Clubbe detailed seven cases of intussusception in children under six months old, all operated on, with four recoveries, a percentage that compares very favourably indeed with those previously recorded, and has led Mr. Clubbe to conclude that the operation, which is easy, should be performed early in all cases, however young the child, if rectal injection or inflation fails.

Appointments.

Dr. A. Jarvie Hood has been elected physician to the Sydney Hospital in place of the late Dr. Huxtable. Dr. Gordon MacLeod has been appointed assistant ophthalmic surgeon at the Sydney Hospital. Dr. W. H. Goode has been appointed official visitor to the Hospitals for the Insane at Gladesville and Callan Park, and Dr. Alfred Shewen as official visitor to the Hospital for the Insane at Paramatta.

Obituary.

HENRY GRACE, M.R.C.S. ENG., L.R.C.P. LOND., L.S.A.

MR. HENRY GRACE died very suddenly last week. On Nov. 11th, in the best of spirits, he left Kingswood for Honiton, where he intended to have a few days' shooting with an old schoolfellow. On the 13th, whilst shooting, he had a stroke of paralysis, and expired before any of his family had time to reach him. Mr. Grace was the eldest member of the well-known Grace family and was born at Downend in 1833. He was educated at the Bristol Medical School, and after taking the London qualifications he settled in practice at Kingswood. Mr. Grace was a typical country surgeon—his duty to the sick was his first consideration, and in his large practice he was held in the highest esteem. This practice was probably the largest country practice in Gloucestershire; in addition to being medical officer of health of Kingswood and surgeon to the Stapleton Workhouse, he was medical officer to most of the local friendly societies. He took a keen interest in all that concerned the welfare of the neighbourhood. Like other members of the family, he was an ardent sportsman, and in his younger days earned some distinction as a cricketer. He was interred last Saturday at Downend Churchyard in the presence of a large concourse of people. The "Doctor," as he was generally termed, will be sadly missed at Kingswood, and much sympathy is felt for his widow and family, which consists of four daughters, three of whom have married members of the profession, and one son, who is in practice in Derbyshire.

RICHARD ROSS, M.D. ST. AND., L.R.C.S. IREL.

THE announcement of the death of one of the oldest and most respected of the medical practitioners of Belfast, Dr. Richard Ross, which took place at his residence on Wednesday morning, Nov. 13th, was received with great regret by a numerous circle of friends. Dr. Ross's death came as a great surprise to the people of Belfast, as, although he was sixty-eight years old, he had been busy at work almost up to a week before his decease. It would appear that on the afternoon of Nov. 5th he was seized with sudden weakness while out, and on the following day a rheumatic attack with heart complications developed, which terminated suddenly in death from heart failure on Nov. 13th. Dr. Ross was born in county Monaghan and was the son of a Presbyterian clergyman. Through the influence of an uncle who was a physician in Rostrevor, with whom he spent a considerable portion of his boyhood, Dr. Ross decided to enter the medical profession and went to study in Dublin. He became qualified in 1848 as a Licentiate of the Royal College of Surgeons of Ireland, and in 1850 he took the degree of M.D. at St. Andrews University, having previously become a Licentiate in Midwifery of the Coombe Hospital, Dublin. When a student he was a clinical assistant at the Meath Hospital, Dublin, and soon after completing his college course he went to the west of Ireland, where he had considerable experience in dealing with an epidemic of cholera. In the year 1850 he commenced practice in Belfast, and he was one of the first five medical gentlemen elected as dispensary medical officers for Belfast under the present Poor-law system. This post he held for about twenty years, when he retired from the office on being elected physician to the Belfast Royal Hospital, an appointment which he held until the time of his death, up to which he was not only senior physician but also the senior member of the entire staff. He was also consulting physician to the Hospital for Diseases of the Skin and to the Hospital for Consumption and Diseases of the Chest, and he was the local consulting physician in Belfast for some of the best-known life assurance companies. He was one of the oldest members and also a former president of the Ulster Medical Society. Dr. Ross for a lengthened period had one of the very best medical practices in Belfast; his extremely kind disposition and his wonderful skill in prescribing caused him to be regarded by his patients not only as an able physician but also as a beloved personal friend. He was an extreme favourite with the members of his own profession, and many of them now in prominent positions in Belfast recall with the utmost gratitude his kindly advice and assistance in their early career. Dr. Ross was a man who never did a dishonourable action or said an unkind word. He leaves a widow, a daughter, and a son (now a clergyman of the Church of Ireland) to mourn their loss. His brother, the late David Ross, Q.C., who was Recorder for Belfast and county court judge for county Antrim, in his will left the residue of his estate to his brother Richard (Dr. Ross), "to whose wonderful kindness and aid when they required it he and his other brothers owed so much."

HUGH LANE, M.R.C.S. ENG., L.R.C.P. EDIN.

MR. HUGH LANE, a well-known and respected Bath practitioner, died at his residence in Bush-street on Thursday, Nov. 14th. He contracted diphtheria, and this terminated fatally after a short illness. The deceased received his medical education at Guy's Hospital, and became L.R.C.P. Edin. in 1882 and M.R.C.S. Eng. in 1883. He held the appointments of honorary medical officer to the Royal United Hospital, Bath, and physician to the Eastern Dispensary, Bath.

PITHECANTHROPUS ERECTUS.—A special meeting of the Anthropological Institute will be held on Monday, Nov. 25th, at 8.30 P.M., at 3, Hanover-square, when Dr Dubois of the Netherland Indian Army will exhibit the curious skull and bones found by him in Java, regarding which opinions differ as to whether they belonged to a man or an ape.

BRISTOL MEDICO-CHIRURGICAL SOCIETY.—The second meeting of the session was held in the medical library of University College, Bristol, on Nov. 13th, Mr. A. W. Prichard being in the chair. Mr. Morton showed a patient with a Cyst of the Antrum, and a patient with sarcoma of the superior maxillary bone who had been treated by injections of erysipelas toxine.—Dr. J. Michell Clarke read a paper on Huntington's Chorea and Senile Chorea, and exhibited a case of the former affection.—Dr. F. H. Edgeworth showed a series of lantern slides in connexion with cases of Exophthalmic Goitre.

Medical News.

UNIVERSITY OF LONDON.—The following candidates passed the M.B. examination in October:—

FIRST DIVISION.

Abrahams, Bertram Louis, B.Sc., University College.
Barnard, Harold Leslie, London Hospital.
Blake, Victor John, University College.
Brook, Sydney Wilkinson, Owens College and Manchester Royal Infirmary.
Bull, Stanley Arthur, Westminster Hospital.
Cook, Albert Ruskin, B.Sc., Cambridge University and St. Bartholomew's Hospital.
Cook, John Howard, University College.
Crookshank, Francis Graham, University College.
Despard, Rosina Clara, London School of Medicine for Women.
Dimsey, Alfred, University College.
Every-Clayton, Leopold E. V., Guy's and London Fever Hospitals.
Gillies, Sinclair, St. Bartholomew's Hospital.
Handley, William Sampson, Guy's Hospital.
Hopton, Ralph, Yorkshire College.
Playfair, Ernest, King's College.
Pugh, William Thomas Gordon, Middlesex Hospital.
Rodocanachi, Amb. John, B.Sc., University College.
Salter, Alfred, Guy's Hospital.
Shaw, Harold Batty, University College.
Sowry, George Herbert, St. Bartholomew's Hospital.
Thomas, Thomas Morrell, Guy's Hospital.
Walton, Herbert James, St. Bartholomew's Hospital.

SECOND DIVISION.

Allan, Edward Buller, University College.
Belcher, James Arthur, University College.
Blenkinsop, Frederick Linton, University College.
Bodman, John Hervey, University College, Bristol, and St. Bartholomew's Hospital.
Brown, Joseph Norwood, University College.
Byrne, Peter Kevin, B.A., University College.
Carter, Felix Bolton, University College.
Coleman, James Jordan, Guy's Hospital.
Coutts, Francis James, University College.
Crace-Calvert, George Alfred, St. Bartholomew's Hospital.
De Segundo, Charles Sempill, St. Bartholomew's Hospital.
De Steiger, Adèle Isabella, London School of Medicine and Royal Free Hospital.
Dove, Percy William, St. Bartholomew's Hospital.
Eastes, George Leslie, B.Sc., Guy's Hospital.
Edmunds, Percy James, B.Sc., University College.
Ferraby, Henry Percival, Guy's Hospital.
Gibbons, Arthur Philip, London Hospital.
Gurney, Alexander Cecil, St. Bartholomew's Hospital.
Hardenberg, Edward Fras. H., Guy's Hospital.
Hardman, Richard Smith, Owens College and Manchester Royal Infirmary.
Harnett, Charles John, Guy's Hospital.
Haylett, Peter Henry, Guy's Hospital.
Hora, Julian, Guy's Hospital.
Hull, Charlotte Elizabeth, London School of Medicine and Royal Free Hospital.
Hunnard, Arthur, University College.
Hunt, Tom Harold, Owens and Yorkshire Colleges.
Jenkins, Arthur William, University College.
Jewell, William Henry, Guy's Hospital.
Kingsford, Bertram Harold, St. Thomas's Hospital.
Kirton, Reginald Gower, London Hospital.
Knight, Ernest, Owens College and Manchester Royal Infirmary.
Miskin, Ernest, St. Thomas's Hospital.
Nicholson, Thos. Goddard, B.Sc., St. Thomas's Hospital.
O'Hea, James Patrick, St. Bartholomew's Hospital.
Pearson, Maurice Grey, B.Sc., St. Bartholomew's Hospital.
Scharlieb, Herbert John, University College.
Schofield, Samuel Robert, University College.
Sinigar, Harry, Mason College.
Smellie, John Clementson, St. Mary Hospital.
Smith, Frank Addinsell, St. Bartholomew's Hospital.
Spillane, James Charles, London Hospital.
Stoney, Florence Ada, London School of Medicine for Women.
Traill-Christie, Margaret Marion, London School of Medicine and Royal Free Hospital.
Vellacott, Philip Northcott, Guy's Hospital.
Wilks, Morris, University College.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed the First Professional Examination in Anatomy and Physiology for the Diploma of Fellow at a meeting of the Board of Examiners on Thursday, Nov. 14th, viz.:—

Charles James Heaton, L.R.C.P. Lond., M.R.C.S. Eng., St. George's Hospital; Charles Ryall, L.R.C.P. Lond., M.R.C.S. Eng., Westminster Hospital and King's College, London; Richard Truman FitzHugh and Arthur John Cleland, Guy's Hospital; Alexander Gordon Wilson and George Hutcheson, London Hospital; Avery Wynn Dickson, St. Bartholomew's Hospital; Sidney Herbert Berry, Charing-cross and St. Bartholomew's Hospitals. Eight gentlemen were referred for six months.

ROYAL COLLEGE OF PHYSICIANS OF DUBLIN.—The following gentlemen have passed the examination for the Conjoint Diploma in State Medicine:—

E. G. Annis, M.R.C.S. Eng., G. W. Dawson, L.R.C.P. and S.I., W. J. Greer, F.R.C.S.I., J. J. Goodlatte Murray, L.R.C.P. and S. Edin.

FOREIGN UNIVERSITY INTELLIGENCE.—*Buda-Pesth:* Dr. L. Török has been recognised as *privat docent* in Dermatology.—*Giessen:* Dr. Strahl of Marburg has been appointed to the chair of Anatomy in succession to Dr. Bonnet.—*Freiburg (Baden):* Dr. Gaupp and Dr. Nagel have been recognised as *privat docenten* in Anatomy and Physiology respectively.—*Heidelberg:* Dr. Ernst Göppert has been recognised as *privat docent* in Anatomy. A Dental Institute has been established under the direction of Dr. Jung.—*Prague (German University):* Dr. J. Gad of Berlin has been appointed to the chair of Physiology in succession to Dr. Hering.—*Strassburg:* Dr. Schenerlen has been recognised as *privat docent* in Hygiene and Bacteriology.—*Vienna:* Dr. S. Fuchs has been recognised as *privat docent* in Physiology.

NOTTINGHAM MEDICO-CHIRURGICAL SOCIETY.—A meeting of the society was held on Oct. 30th, Dr. Mutch, President, being in the chair. The inaugural address for the session 1895–6 was delivered by Dr. G. V. Poore, Physician to University College Hospital, on "The Soil in its Relation to Disease and Sanitation." The origin, constitution, and properties of the soil were fully dealt with; some of the common disease germs present in the soil were alluded to, and also the power of the soil to assimilate dead organic matter, and render pathogenic bacteria harmless. Conditions of drought and moisture were considered in their relation to disease, and the evil consequences likely to result from allowing large tracts of land to go out of cultivation were commented on. A cordial vote of thanks to Dr. Poore was passed on the motion of Dr. Handford, seconded by Dr. Lamb.

AN UNFORTUNATE SCHEME.—The scheme of the Newport (Monmouthshire) Corporation to obtain a supply of water from Wentwood, about ten miles from the town, has been most unfortunate. The report of the two geological experts upon the site was presented to the committee last week. This recommends the abandonment of the scheme on the ground that, if the works were completed, in their opinion the reservoirs would not hold water. The experts exonerate the committee of the council, who had chosen the site, from all blame, as it would have been impossible to have said until the present stage had been reached that the geological formation was unsuitable. The amount of the contract was about £100,000, and the committee had been given power to borrow £250,000. The scheme has already cost £40,000. At present no further progress will be made with the works, although some other experiments may be carried out.

A NEW COTTAGE HOSPITAL AT FARNHAM.—The new Bishop of Winchester (Dr. Davidson) last week opened a cottage hospital erected under the bequest of the late Mr. George Trimmer and adequately endowed for the future. A site was given by the testator's two sons, Mr. R. G. Trimmer and Mr. C. E. Trimmer, Mr. J. A. Eggar presenting the designs. The hospital has a southern aspect, and the male and female wards (each containing three beds) open on to a long verandah, each ward being 21 ft. by 14 ft. There is an accident ward and a small operating room, the whole on the ground floor. Upstairs the only patients' room will be a day ward for convalescents. The cost of the building, exclusive of the furniture, was £2000. The honorary medical staff will include Mr. S. G. Sloman, jun., Mr. H. Sloman, Dr. C. E. Tanner, and Mr. J. Lorimer. There will be but one nurse, with a probationer and domestics.

WORKHOUSE ACCOMMODATION AT CARDIFF.—During the last few years the population of Cardiff has increased so rapidly that the present workhouse accommodation has been found insufficient. Last winter there was an excess of 100 male inmates over the proper number, and at present the workhouse is much overcrowded. The guardians then endeavoured to find some building which might be used for temporary accommodation, and also made applications to other unions to receive some of their inmates, but without any success. Two inspectors from the Local Government Board met a committee of the guardians last week, when it was stated that no further addition to the present number of inmates could be allowed. The committee have therefore decided to procure a site of about twenty acres, in the neighbourhood of Ely (Glam.), which will be suitable for new temporary, and eventually for permanent, buildings.

THE DIFFUSION OF SMALL-POX.—Last week, for the first time for sixteen weeks, there were no deaths registered from small-pox in the metropolis, although there was one in the suburban district of West Ham.

GUY'S HOSPITAL.—The treasurer of Guy's Hospital has received a cheque for £1000 from Mr. A. L. Cohen for the endowment of a bed in memory of his late son, H. A. Cohen.

THE NEW SOMERSET COUNTY ASYLUM.—At the last meeting of the Somerset County Council a contractor was appointed to build the Cotford Asylum, near Taunton. The cost of this new asylum, including furniture and fittings, will be £132,480. The contractor states that it is impossible to complete the building under two years, but it is thought that a portion may be completed and occupied before then.

SOUTH-WEST LONDON MEDICAL SOCIETY.—The monthly meeting of this society was held at "Stanley's," Lavender-hill, S.W., on Nov. 13th, when a paper was read by Dr. Charles W. Chapman on Heart Disease in the Young. Stress was laid upon etiology, prognosis, and treatment, and an interesting discussion ensued, in which the President, Mr. T. S. Howell, Dr. A. D. Roe, Mr. A. E. Dodson, Mr. B. Duke, Mr. T. A. J. Howell, and others took part.

BIRMINGHAM AND MIDLAND EYE HOSPITAL.—A new wing of the Birmingham and Midland Eye Hospital was opened on Nov. 9th by Viscountess Newport. It contains a special department for the treatment of children, together with rooms for nurses and members of the staff. The out-patient rooms have also been enlarged, and a large ward for male patients has been constructed. The hospital was erected eleven years ago at a cost of £20,000, and a sum of £5000, has been expended in the recent alterations and additions. Last year there were 1100 in-patients and 24,000 out-patients.

INFIRMARY MEDICAL SUPERINTENDENTS' SOCIETY.—The November meeting of this society was held on Saturday, Nov. 16th, at the Lewisham Infirmary, the President, Mr. J. R. Lunn, F.R.C.S., in the chair. Dr. Toogood, Medical Superintendent of Lewisham Infirmary, exhibited cases of Ununited Fracture of Femur cured by operation; Traumatic Gangrene of Foot; Multiple Perineal Fistulæ cured by External Urethrotomy; Symmetrical Paralyses caused by Lead Poisoning; Acute Conjunctivitis produced by Malingering; Pelvic Sarcoma; Exophthalmic Goitre; Malignant Myopia; Tubercular Synovitis following Acute Rheumatism; Malignant Tumour of Kidney; large Calcified Fibroma of Uterus. The President congratulated Dr. Beaumont, Dr. Quarry, and Mr. Spurrell on obtaining their appointments, and a vote of thanks to Dr. Toogood for his interesting series of cases concluded the proceedings.

LUNACY IN YORKSHIRE.—The best means of providing increased accommodation for lunatics in the West Riding was considered at a conference held on Nov. 11th in the Town Hall, Wakefield. Colonel Spencer Stanhope, C.B., chairman of the Asylums Committee, presided, and the company included representatives of nearly all the boards of guardians of the Riding and the chairman of the West Riding County Council. Colonel Stanhope said that the number of patients in the three asylums of Menston, Wadsley, and Wakefield in the year 1885 was 3858, and in 1894 it had risen to 4774, being an increase of 916 in ten years. The Asylums Committee were desirous of ascertaining whether suitable accommodation for harmless cases might not be provided in the workhouses, where the cost of maintenance was undoubtedly less than in the asylums. A separate asylum for the treatment of chronic cases would effect very little saving, as a special staff of officials would be required. After some discussion it was arranged that the subject should be considered by the individual boards of guardians, and the Conference adjourned.

BOOKS, ETC., RECEIVED.

ALCAN, FELIX, Paris.

L'Opération du Trépan. Par F. Terrier et M. Péraire. 1895. pp. 283.

BAILLIÈRE, TINDALL, AND COX, King William-street, Strand, London.

A Text-book of Veterinary Obstetrics. By Geo. Fleming, C.B., LL.D. Glasg., F.R.C.V.S. Illustrated. Second Edition. 1896. pp. 758. Price 25s.

A Manual of Physics. By William Peddie, D.Sc., F.R.S.E. Second Edition. 1896. pp. 573. Price 7s. 6d.

BALE, J., AND SONS, Great Titchfield-street, Oxford-street, London, W.

School Gymnastics on the Swedish System. By Allan Broman. 1895. pp. 105. Price 3s. 6d.

BLACKIE AND SON, Old Bailey, London, E.C.

Blackie's Science Text-books: Earth Knowledge, a Text-book of Physiography. By W. J. Harrison, F.G.S., and H. R. Wakefield. Ninth Edition. Part I. 1895. pp. 266.

Elementary Inorganic Chemistry, Theoretical and Practical. By A. H. Sexton, F.I.C., F.C.S., M.I.M. & M. Fourth Edition. 1895. pp. 366. Price 2s. 6d.

Food and Its Functions; a Text-book for Students of Cookery. By James Knight, M.A., B.Sc., F.C.S., F.G.S., 1895. pp. 282. Price 2s. 6d.

CASSELL AND COMPANY, London.

Injuries and Diseases of the Genital and Urinary Organs. By Henry Morris, M.A., M.B. Lond., F.R.C.S. Illustrated. 1895. pp. 478. Price 21s.

Cassell's Family Magazine, 1895. Illustrated. pp. 952.

CHURCHILL, J. & A., New Burlington-street, London.

Year-Book of Pharmacy, from July 1st, 1894, to June 30th, 1895. 1895. pp. 455.

HODDER AND STOUGHTON, Paternoster-row, London, E.C.

A History of the University of Aberdeen, 1495–1895. By J. Malcolm Bullock, M.A. 1895. pp. 220. Price 4s. 6d.

LEWIS, H. K., Gower-street, London.

Transactions of the Dermatological Society of Great Britain and Ireland, 1894-95. Vol. i, 1895. pp. 91. Price 5s.

An Essay on Malaria and Its Consequences. By R. Lindsay, A.M., M.B., F.R.C.S.E. 1895. Price 4s.

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Transactions of the Glasgow Pathological and Clinical Society. Vol. v. Session 1893-95. Edited by J. H. Carslaw, M.A., M.D. 1895.

MACMILLAN AND CO., London.

The Cambridge Natural History: Peripatus. By A. Sedgwick, M.A. Camb., F.R.S.—Myriapods. By F. G. Sinclair, M.A. Camb.—Insects, Part I. By D. Sharp, M.A. Cantab., M.D. Edin., F.R.S. 1895. pp. 584. Price 17s. net.

OLIVER AND BOYD, Edinburgh.

Notes on Surgery for Nurses. By Joseph Bell, M.D., F.R.C.S. Edin. Fourth Edition. 1895. pp. 180. Price 2s. 6d.

The Transactions of the Edinburgh Obstetrical Society. Vol. xx. Session 1894-95. 1895.

PENTLAND, YOUNG J., Edinburgh and London.

Physical and Natural Therapeutics. By Georges Hayem, M.D. Edited by H. A. Hare, M.D. Illustrated. 1895. pp. 426.

The Science and Art of Obstetrics. By T. Parvin, A.M., M.D., LL.D. Third Edition. Illustrated. 1895. pp. 685.

Disorders of the Male Sexual Organs. By E. Fuller, M.D. 1895. pp. 241.

A Text-book on Nervous Diseases. By American Authors. Edited by F. X. Dercum, A.M., M.D., Ph.D. Illustrated. 1895. pp. 1056.

Epidemic Ophthalmia: Its Symptoms, Diagnosis, and Management, with Papers upon Allied Subjects. By Sydney Stephenson, M.B., F.R.C.S. Edin. 1895. pp. 271.

RIVINGTON, PERCIVAL AND CO., King-street, Covent-garden, London.

Clinical Illustrations of the Diseases of the Fallopian Tubes and of Tubal Gestation. By C. J. Cullingworth, M.D. Durh., 1895. pp. 75. Price 12s. 6d.

STOCK, ELLIOT, 62, Paternoster-row, London.

The Gillmans of Highgate, with Letters from Samuel Taylor Coleridge. Illustrated. By Alex. W. Gillman. pp. 53.

SWAN SONNENSCHEIN AND CO., Paternoster-square, London, E.C.

Text-book of the Embryology of Invertebrates. By Drs. E. Korschett and K. Heider. Translated from the German by E. L. Mark, Ph.D., and W. McM. Woodworth, Ph.D. Part I. 1895. pp. 484.

Outlines of Pyschology. By Oswald Külpe. Translated from the German (1893) by E. B. Titchner. 1895. pp. 462. Price 10s. 6d.

UNWIN, T. F., Paternoster-square, London.

The Riviera, Ancient and Modern. By Chas. Lenthéric. Translated by C. West, M.D. With Maps and Plans. 1895. pp. 465.

WILLIAMS AND NORGATE, Henrietta-street, Covent-garden, London.

Leitfaden der Hygiene. Von Dr. Aug. Gärtner. Zweite Auflage. 1896. pp. 407. Price 7s.

Geschichte der Volksseuchen. Von Dr. B. M. Lersch. 1896. pp. 455.

The Auscultatory Signs, &c., of Mitra. Stenosis: a Statistical Inquiry by Graham Steell, M.D., F.R.C.P.; reprint; 1895 (John Heywood, Manchester and London).—The Life of Kate Marsden; by H. Johnson; second edition; 1895 (Simpkin Marshall, Hamilton, and Co., London); price 1s.—The Ethnology of Buchan: Report on Preliminary Ethnographical Observations; by the Buchan Field Club; reprint (David Scott, Printing Works, Peterhead).—Manuals of Elementary Science: Physiology; by A. Macalister, LL.D., M.D., F.R.S., F.S.A.; 1895 (Society for Promoting Christian Knowledge, Northumberland-avenue, London, W.C.); price 1s.—The Student's Pocket Prescriber; by H. A. Husband, M.B.; third edition; 1895 (E. & S. Livingstone, Edinburgh); price 1s. 6d. net.—Saunders' Pocket Medical Formulary, with an Appendix; by W. M. Powell, M.D.; third edition; 1895; price 7s. 6d. net.—Invalid Feeding; by Florence Stacpoole (Walter Scott, Paternoster-square, London); price 6d.—The Care of Infants and Young Children; by Florence Stacpoole (W. Scott, Paternoster-square, London); price 6d.—A Variety of Useful Diaries for 1896 (from Wm. Collins, Sons, and Co., Publishers, Bridewell-place, London, E.C.).—Medical Ethics; by G. E. Elliott, M.D., F.R.C.P.; reprint; 1889 ("Eastern Morning News" Company, Whitefriar-gate, Hull).

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

ABRAHAM, PHINEAS S., M.A., M.D., B.Sc., F.R.C.S.I., has been appointed Assistant Surgeon to the Hospital for Diseases of the Skin, Stamford-street, S.E.

ANDERSON, D. A., L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., has been appointed Medical Officer for the Cuckfield Sanitary District of the Teesdale Union, vice G. E. Vivian.

BARBER, GEORGE WALTER, M.R.C.S. Eng., L.R.C.P. Lond., has been appointed Medical Officer to the Kalgoorlie (Hannan's) Hospital, West Australia.

BODEN, J. S., M.R.C.S., L.R.C.P., has been appointed House Surgeon to King's College Hospital, London.

BOSSFIELD, A., B.A., B.Sc., M.R.C.S., L.R.C.P., has been appointed House Physician to King's College Hospital, London.

BURRIDGE, H. A., M.R.C.S., L.R.C.P., has been appointed House Accoucheur to King's College Hospital, London.

DAVIES, ALBERT BARNES, M.R.C.S. Eng., L.R.C.P. Lond., has been appointed Honorary Surgeon to the Stroud General Hospital.

HARDWICKE, E. W., M.B., B.C. Camb., has been appointed Medical Officer of Health by the Quarry Bank Urban District Council.

HARRIS, H., L.R.C.P. Edin., M.R.C.S., has been appointed Medical Officer for the Bacup Sanitary District of the Haslingden Union.

LANSDOWN, G. H., M.R.C.S., L.R.C.P., has been appointed Assistant House Physician to the King's College Hospital, London.

LE TALL, W. J., M.R.C.S., has been appointed Medical Officer of Health for the Rotherham Rural Sanitary District.

LITTLE, E. G. GORDON, M.D. Lond., B.A. Cape Univ., M.R.C.P. Lond., M.R.C.S. Eng., has been appointed Assistant Physician to the East London Hospital for Children, Shadwell.

MCGACHEN, F. W. D., L.F.P.S., L.M. Glasg., D.P.H. Eng., has been appointed Medical Officer for the Markyate Sanitary District of the Luton Union, vice C. W. Beresford, resigned.

MELLERSH, W. FRANCIS, L.D.S. R.C.S. Eng., has been appointed Honorary Surgeon Dentist to the Thames Ditton Cottage Hospital.

MOORE, BROS., M.R.C.S., L.M., has been appointed Medical Officer of Health for the Hazel Grove District by the Stockport Rural District Council.

NUTTING, E. S., M.B., M.S. Edin., has been appointed Medical Officer of Health for the Warsop Urban Sanitary District.

PACKER, HARRY D., M.R.C.S. Eng., L.R.C.P. Lond., has been appointed Assistant Resident Medical Officer to the East Riding Lunatic Asylum, Bury, Yorks.

PLAYFAIR, E., M.B. Lond., M.R.C.S., L.R.C.P., has been appointed Assistant House Accoucheur to King's College Hospital, London.

SPENCER, EDWARD, M.B., Ch.B. Vict., L.S.A., has been appointed Resident Medical Officer and Assistant Vaccinator to the Colonial Hospital, Perth, West Australia, vice Wm. Elgee, resigned.

THOMAS, D., M.D. Edin., L.R.C.S. Edin., has been appointed Medical Officer of Health by the Ystadgynlais Rural District Council.

THURESSON, E. M., L.R.C.P., L.R.C.S. Edin., has been appointed Medical Officer for the Second Sanitary District of the Parish of St. George-in-the-East, Whitechapel.

TRIBE, P. C. E., M.R.C.S., L.R.C.P., has been appointed House Surgeon to King's College Hospital, London.

TROUP, J. McD., M.A., L.S.A., has been appointed House Surgeon to King's College Hospital, London.

TUXFORD ARTHUR, M.D. Edin., has been appointed Medical Officer of Health to the Boston Town Council, the Port Sanitary Authority, Boston, and the Sibsey Rural District, vice W. Clegg, resigned.

VACHER, F., F.R.C.S., M.R.C.P. Edin., has been appointed Medical Officer of Health for the County of Cheshire.

WATSON, J. K., JUN., M.B., C.M. Edin., has been appointed House Surgeon to the Essex and Colchester Hospital, Colchester, vice P. Coleman, resigned.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement (see Index).

BLACKBURN AND EAST LANCASHIRE INFIRMARY, Blackburn.—Junior House Surgeon. Salary £50 per annum, with board, washing, lodging, &c.

CENTRAL LONDON OPHTHALMIC HOSPITAL, 238, Gray's-inn-road, W.C.—House Surgeon.

CITY OF LIVERPOOL.—Assistant to the Medical Officer of Health. Salary £350 per annum, subject to a contribution of £5 per cent. to the Corporation Superannuation Fund. Applications to the Town Clerk, Town Clerk's Office, Liverpool.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—House Physician for six months. Salary at the rate of £50 per annum, with board and residence.

COUNTY BOROUGH OF BOLTON.—Medical Officer of Health and Public Analyst. Salary £400 per annum. Applications to the Town Clerk, Town Hall, Bolton.

GENERAL INFIRMARY AT GLOUCESTER AND THE GLOUCESTERSHIRE EYE INSTITUTION.—House Surgeon. Salary £100 per annum, with board, residence, and washing.

GLASGOW EYE INFIRMARY.—Resident Assistant House Surgeon. Salary £50, with apartments and board.

HOSPITAL FOR DISEASES OF THE THROAT, Golden-square, London, W.—Resident Medical Officer. Salary £50 per annum, with board, lodging, and washing.

HOSPITAL FOR SICK CHILDREN, Great Ormond-street, Bloomsbury, London, W.C.—House Surgeon to out-patients (non-resident) for six months. Salary 25 guineas.

HOSPITAL FOR WOMEN, Soho-square, London.—Assistant House Physician (non-resident) for three months. Also Assistant Physician to take charge of out-patients.

HOSPITAL OF ST. PETER PORT, Guernsey.—Two qualified Surgeons (non-resident), for one year. Salary £75 each per annum currency (vaccination included), in addition to which a certain vaccination allowance.

LONDON HOSPITAL, Whitechapel, E.—Dental Surgeon.

LONDON TEMPERANCE HOSPITAL, Hampstead-road, N.W.—Assistant Resident Medical Officer. Board, washing, and residence provided.

MANCHESTER ROYAL INFIRMARY (MONSALL FEVER HOSPITAL).—Assistant Medical Officer at the Monsall Fever Hospital for twelve months, unmarried. Salary £100 per annum, with board and residence.

MONKWEARMOUTH AND SOUTHWICK HOSPITAL, Sunderland.—House Surgeon, unmarried. Salary £80 per annum, with board, residence, and washing.

NORTH-EASTERN HOSPITAL FOR CHILDREN, Hackney-road, Shoreditch, N.E.—House Physician, for six months. Salary at the rate of £60 per annum. Also Junior House Physician, for six months. Board and lodging (including washing) provided.

OWEN'S COLLEGE, Manchester.—Junior Demonstrator in Physiology and Histology. Annual salary £100.

ROYAL BERKS HOSPITAL, Reading.—House Surgeon and House Physician. Salary in each case £60 per annum, with board, lodging, and washing. Also Assistant Medical Officer. These appointments for six months.

ST. GEORGE'S AND ST. JAMES'S DISPENSARY, 60, King-street, Regent-street, London, W.—Resident Medical Officer. Salary £100 per annum, with furnished apartments, coals, and lighting. Also Physician.

SWANSEA GENERAL HOSPITAL.—House Surgeon. Salary £50 per annum, with board, residence, washing, and attendance.

WARNEFORD HOSPITAL, Leamington.—House Surgeon for six months. £100 per annum, with board, lodging, and washing.

Births, Marriages, and Deaths.

BIRTHS.

BAKER.—On the 14th inst., at Church-end, Finchley, the wife of James Barrington Baker, M.D. Durh., of a daughter.

CHEPMELL.—On the 14th inst., at Dyke-road, Brighton, the wife of Charles Chepmell, M.D. Brux., of a son.

COOK.—On the 15th inst., at Newport-road, Cardiff, the wife of Herbert G. Cook, M.D., F.R.C.S., of a son.

EVELYN.—On the 14th inst., at Micklegate, York, the wife of W. A. Evelyn, M.D. Camb., of a daughter.

HAYES.—On the 10th inst., at Dunster, the wife of Francis George Hayes, L.R.C.P. Lond., M.R.C.S. Eng., of a daughter.

HUGHES.—On the 17th inst., at Eastbridge, Croydon, the wife of Morgan Hughes, M.R.C.S., L.D.S., of a son.

RUNDLE.—On the 13th inst., at Southwick, near Fareham, Hants, the wife of Frank Carlyon Rundle, L.R.C.P. and S., Edin., of a daughter.

SANKEY.—On the 16th inst., at Boreatton Park, Baschurch, the wife of E. H. O. Sankey, M.A., M.B., B.C. Camb., of a daughter.

TAYLOR.—On the 12th inst., at Duke-street, Glasgow, the wife of William Taylor, L.D.S. Glasg., of a son.

MARRIAGES.

HALSE-FRANCIS—TRAINER.—On the 5th inst., at St. Michael's Church, Stockwell, Ferdinand Henry Halse-Francis, M.B. Durh., B.S., L.S.A., of Victoria Lodge, West Norwood, to Charlotte Trainer of Edinburgh.

HOLCROFT—CRISP.—On the 19th inst., at St. Mark's, Leamington, Edgar Holcroft, M.A., M.B., B.S. Melb., third son of Thomas Holcroft, J.P., C.C., of Wolverhampton, to Olive Elizabeth Crisp, sixth daughter of the late Thomas Crisp, Solicitor, of Melbourne.

LIDDON—RATTRAY.—On the 14th inst., at St. Michael's Church, East Teignmouth, Devon, Edward Liddon, M.D. Edin., of Silver-street House, Taunton, to Jessie Florence, widow of the late Thomas Alexander Rattray of Dookie, Victoria, and Tiverton, Devon.

MUDD—PRICE JONES.—On the 13th inst., at St. Mark's, Surbiton, Barrington William Mudd, M.B. Aberd., of Ewell, Surrey, to Evelyn, daughter of the late Wm. Price Jones, M.D., of Surbiton.

DEATHS.

JAMIESON.—On the 17th inst., at Elmhill, Aberdeen, Robert Jamieson, M.D. Edin., Consulting Physician to the Royal Lunatic Asylum, Aberdeen, aged 78.

LANE.—On the 14th inst., at Brock-street House, Bath, Benjamin Hugh Lane, M.R.C.S., L.R.C.P. Edin., younger son of Brigade-Surgeon B. Lane, late A.M.S., of Priory-street, Cheltenham, aged 35.

LANGHORNE.—On the 5th ult., at Mount Gambier, South Australia, Thomas Grant Langhorne, M.R.C.S. Eng., L.R.C.P. Edin., eldest son of the late Alexander Grant Smith Langhorne of Holland Park-gardens, W.

MENZIES.—On the 12th inst., at the Royal Naval Hospital, Portland, John Duncan Menzies, Surgeon, R.N., aged 34.

TIMMS.—On the 14th inst., at Cornwall-mansions, Regent's Park, Godwin William Timms, M.D., M.R.C.P., M.R.C.S., &c. (formerly of Wimpole-street), late Senior Physician (twenty-five years) North London Hospital for Consumption, aged 75.

VINCENT.—On the 12th inst., at East Dereham, Henry Bird Vincent, M.R.C.S., L.S.A., aged 44.

N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages and Deaths.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, Nov. 21st, 1895.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb	Wet Bulb.	Solar Radia in Vacuo	Maximum Temp. Shade.	Min. Temp	Rainfall.	Remarks at 8.30 A.M.
Nov. 15	30·02	S.W.	46	44	64	61	44	0·05	Hazy
,, 16	29·70	S.W.	61	58	97	65	46	0·25	Cloudy
,, 17	30·07	S.W.	50	48	75	55	48	...	Fine
,, 18	30·38	S.W.	40	39	52	49	39	...	Foggy
,, 19	30·20	S.E.	43	41	67	50	40	...	Hazy
,, 20	29·91	S.	48	47	54	54	43	...	Overcast
,, 21	29·99	S.E.	48	47	60	50	47	...	Overcast

Medical Diary for the ensuing Week.

OPERATIONS.

METROPOLITAN HOSPITALS.

MONDAY.—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), St. George's (1 P.M.), St. Mark's (2 P.M.), Chelsea (2 P.M.), Samaritan (Gynæcological, by Physicians, 2 P.M.), Soho-square (2 P.M.), Royal Orthopædic (2 P.M.), City Orthopædic (4 P.M.), Gt. Northern Central (Gynæcological, 2.30 P.M.).

TUESDAY.—London (2 P.M.), St. Bartholomew's (1.30 P.M.), Guy's (1.30 P.M.), St. Thomas's (3.30 P.M.), Westminster (2 P.M.), West London (2.30 P.M.), University College (2 P.M.), St. George's (1 P.M.), St. Mary's (1.30 P.M.), St. Mark's (2.30 P.M.), Cancer (2 P.M.).

WEDNESDAY.—St. Bartholomew's (1.30 P.M.), University College (2 P.M.), Royal Free (2 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), King's College (2 P.M.), National Orthopædic (10 A.M.), St. Peter's (2 P.M.), Samaritan (2.30 P.M.), Gt. Ormond-street (9.30 A.M.), Gt. Northern Central (2.30 P.M.).

THURSDAY.—St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), University College (2 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), London (2 P.M.), King's College (2 P.M.), Middlesex (2 P.M.), Soho-square (2 P.M.), North-West London (2 P.M.), Chelsea (2 P.M.).

FRIDAY.—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), King's College (2 P.M.), Cancer (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (2.30 P.M.).

SATURDAY.—Royal Free (9 A.M. and 2 P.M.), Middlesex (1.30 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), University College (9.15 A.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), Cancer (2 P.M.).

At the Royal Eye Hospital (2 P.M.), the Royal London Ophthalmic (10 A.M.), the Royal Westminster Ophthalmic (1.30 P.M.), and the Central London Ophthalmic Hospitals operations are performed daily.

SOCIETIES.

MONDAY.—MEDICAL SOCIETY OF LONDON.—8.30 P.M. Mr. Edmund Owen: The Operative Treatment of Cleft Palate.—Dr. C. E. Beevor: The Distribution of Motor and Sensory Symptoms after Injury to the Brachial Plexus.

TUESDAY.—ROYAL MEDICAL AND CHIRURGICAL SOCIETY (20, Hanover-square, W.).—Special Discussion: "The Possibilities as to the Latency of Parasitic Germs or Specific Poisons in Animal Tissues, as in Hydrophobia, Erysipelas, Syphilis, Leprosy, Ringworm, Tuberculosis, &c." Introductory Remarks by Mr. Jonathan Hutchinson (President). Bacteriology of Latency, introduced by Dr. Washbourn; Latency of Tuberculosis, Dr. J. Kingston Fowler; Latency of Leprosy, Dr. Phineas Abraham; Latency of Syphilis, Mr. J. Ernest Lane.

WEDNESDAY.—SOCIETY OF ARTS.—8 P.M. Second Ordinary Meeting. Mr. H. H. Cunynghame: Locomotive Carriages for Common Roads.

HUNTERIAN SOCIETY.—8.30 P.M. Dr. G. E. Herman: Vaginismus and Allied Affections.—Dr. Arnold Chaplin: The Effect of Physiological Rest upon the Lung in Phthisis.

LECTURES, ADDRESSES, DEMONSTRATIONS, &c.

MONDAY.—LONDON POST-GRADUATE COURSE.—London Throat Hospital, Gt. Portland-st., W., 8 P.M., Dr. E. Woakes: Tinnitus and Vertigo.

TUESDAY.—LONDON POST-GRADUATE COURSE.—Bethlem Hospital, 2 P.M., Dr. Craig: Insanity with Cardiac Disease, Phthisis, Gout, &c.

WEDNESDAY.—HOSPITAL FOR CONSUMPTION, &c. (Brompton).—Dr. J. Mitchell Bruce: Asthma.

ST. JOHN'S HOSPITAL FOR DISEASES OF THE SKIN (Leicester-square, W.C.).—5 P.M. Dr. Morgan Dockrell: Psorospermosis Cutis.

WEST LONDON POST-GRADUATE COURSE (West London Hospital, W.).—5 P.M. Mr. Cheatle: Surgical Cases.

THURSDAY.—LONDON POST-GRADUATE COURSE.—Hospital for Sick Children, Great Ormond-street, 3.30 P.M., The Surgical Registrar: Pathological Demonstration.—National Hospital for the Paralysed, Bloomsbury, 2 P.M., Mr. Victor Horsley: Surgery of the Nervous System.—Central London Sick Asylum, Cleveland-st., 5.30 P.M., Mr. John Hopkins: Cases in the Wards.

FRIDAY.—LONDON POST-GRADUATE COURSE.—King's College, 3 to 5 P.M. Prof. Crookshank: Tetanus, Rabies, and Cholera.

SATURDAY.—LONDON POST-GRADUATE COURSE.—Bethlem Hospital, 11 A.M., Dr. Craig: Lunacy Law.

ST. JOHN'S HOSPITAL FOR DISEASES OF THE SKIN (Leicester-sq., W.C.).—5 P.M. Dr. Morgan Dockrell: Diseases of Nails.

During the week marked copies of the following newspapers have been received:—*Macclesfield Courier, Manchester Evening News, Leicester Daily Post, Durham Chronicle, Birmingham Gazette, Gloucester Journal, Sussex Daily News, Eastern Daily Press, Sheffield Independent, Beverley Recorder, East Anglian Daily Times, Preston Herald, North Wales Post, North Star, Belfast News Letter, Newcastle Chronicle, Western Morning News, Hastings Times, Family Churchman, Liverpool Mercury, Educational Review, Brighton Gazette, Man of Ross, Hotel, Brighton Examiner, Galignani Messenger, Doncaster Gazette, Oban Express, Oban Telegraph, Grimsby News, Truth, Hexham Herald, Ormskirk Advertiser, Berrow's Worcester Journal, Daily Argus, Lowestoft Standard, Medical Record (New York), Kent Messenger, Isle of Wight Express, Framlingham Weekly News, Manchester Guardian, &c., &c.*

Notes, Short Comments, and Answers to Correspondents.

EDITORIAL NOTICE.

IT is most important that communications relating to the Editorial business of THE LANCET should be addressed *exclusively* "TO THE EDITORS," and not in any case to any gentleman who may be supposed to be connected with the Editorial staff. It is urgently necessary that attention be given to this notice.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Lectures, original articles, and reports should be written on one side of the paper only.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *should be addressed "To the Manager."*

We cannot undertake to return MSS. not used.

"IMPORTANT NOTICE."

TWO CORRESPONDENTS enclose to us copies of the following handbill:—

Important Notice.—W. E. Hailstone, Cash Price Chemist, 152, Camberwell-road, S.E., begs to announce that he has arranged with Mr. Stafford Allen, R.D.S., Dental Surgeon, to attend daily at the above Address. Artificial Teeth at Moderate Prices. A Single Tooth from 2*s.* 6*d.*; A Complete Set from a Guinea. Repairs to Sets completed in two hours if required. Perfect Fit and Natural Appearance Guaranteed. Extractions: By Gas, from 6*s.* 6*d.*; Painless, from 2*s.* 6*d.*; Ordinary, from 1*s.* Stopping, from 2*s.* Scaling, from 1*s.*

Dr. Morris Jenkins, M.R.C.S.Eng., L.R.C.P.Lond., attends daily. Hours of Consultation: Morning, 12 to 1; Evening, 8 to 9. Midwifery attended.

Note the Address—152, Camberwell-road, S.E.

Mr. Morris Jenkins must know that to have his name, address, and qualifications disseminated in this way is incorrect conduct.

Dr. Wm. Wallace.—Our correspondent should apply to any dealer in chemical apparatus. We believe that Messrs. Baird and Tatlock of 14, Cross-street, Hatton-garden, London, E.C., supply spirit lamps of the Bunsen or Argand type suitable for the purposes mentioned. Coal gas, again, may be had compressed in steel tubes. For incubation ordinary night lights are useful, placed at some distance beneath the incubator, the temperature being also regulated by the number used.

Cortez is recommended to write direct to one of the four Inns, where he will get all particulars. The expense is chiefly the expense of living in London, and can therefore be made whatever a man pleases.

Mr. Arthur Franklin and *O. A. P.*—We never recommend individual practitioners.

Mr. S. S. Ashmore-Noakes's eulogy is one which we can endorse.

WILLIAM III. AND HIS PHYSICIANS IN 1700.

To the Editors of THE LANCET.

SIRS,—The following, taken from Law's "History of Hampton Court Palace," vol. iii., may interest your readers. In a letter dated June 11th, 1700, King William III. is reported to have had given him "a dose consisting of ale impregnated with the leaves of ground ivy, fir tops, hart's tongue, and wild carrot seed." At a consultation held between the physicians Sir Thos. Millington, Dr. Radcliffe, and Dr. Lawrence, "the first two doctors agreed in nothing, neither as to the disease nor as to the remedies. Dr. Radcliffe thought the swelling in the King's leg was little less than dropsy, and advised 'purging and asses' milk.' Millington, on the other hand, said both such remedies were contrary to the King's constitution, and he was for the King's taking garlic. 'That,' said Radcliffe, 'will destroy such weak lungs as the king's.' 'Weak lungs!' cried Millington in answer, 'why his lungs are the soundest part about him.'" On the night of Wednesday, June 26th, 1700, the King took a pill that the physicians gave him, composed of "pillula stomachicæcum cum gummis, the volatile salt of hartsho n, and the syrup of violets." At the same time they prescribed "twenty drops of the tincture of the salt of tartar to be taken every day, and the juice of thirty hog-lice at 6 o'clock at night." It is surprising to learn that "the next day he looked very well

and was cheerful." But the success of a rival's remedy could carry no conviction to the minds of the other worthy medicos, and Lawrence, who sided with Millington, announced that he "had determined not to relinquish his own prescription of garlic." On June 27th John Locke, the philosopher, was sent for, and had an audience of the King. Whilst there he seems to have been asked as a scientific man to "take a diagnosis of the King's condition," and he was able so far to endorse Millington's opinion as to state that in his view, "if the King had a dropsy he would not have so fresh a colour." Thus fortified with the philosopher's pronouncement, Millington and Lawrence proceeded to treat his Majesty after their own fashion, and on the 23rd he was ordered "2 grains of scammony sulphurated, with 2½ grains of the stomachic pills to be taken at night." In Vernon's account of an interview he had with the King a few days after he says: "I was at Hampton Court this morning, and the King seeming a little heavy I asked him if he were out of order; he said he should be very well if they would leave off giving him remedies, and that he had taken something that had put his stomach out of order." The writer says: "But the hour of his escape both from England and from the antagonistic remedies of his physicians had now arrived." Not yet, however, for we read further on: "Up to the last moment the doctors would not relax their hold on his Majesty. That same night a consultation was held and they prescribed a glyster." "I hope," says Vernon, "the King will be better when he is out of their hands at Loo." Next day, at six o'clock in the morning, he left for Margate, on his way to Holland. The night of his return to Hampton Court he was given "half a dram of the cream of tartar twice a day; a ptisane (?) to be taken at pleasure, of the clarified decoction of barley, after a warm infusion of eryngo roots condited, sal prunellæ, and the spirit of black cherries." "The frequent use of tablets made of the species de Althæa, with sal prunella, loaf sugar, and mucilage of tragacanth." A few days after the treatment was changed to "Nynsichtius' elixir vitrioli and spa water." These were followed in quick succession during the next month by "gentian, centaury, tartar vitriolated, salt of wormwood, salt of steel, balsamic syrup, Epsom salts in chicken broth, crabs' eyes, steel prepared with sulphur, hogs' lice, chalybeate pills, elder flowers, after which recourse was again had to the old prescriptions." Was it to be wondered at that the King at last succumbed?

I am, Sirs, yours truly,

East Molesey, Oct. 17th, 1895. W. W. HARDWICKE, M.D. St. And.

A QUERY.

To the Editors of THE LANCET.

SIRS,—Can you give me the titles of any books, monographs, or other papers dealing with the subject of surgical interference in cases of pulmonary cavities, together with the names and addresses of the publishers? Yours faithfully,

Nov. 18th, 1895. H. G. A.

*** THE LANCET, vol. ii., 1880, contains an account of a debate at the Royal Medical and Chirurgical Society upon this subject. Monographs on the operative treatment of pulmonary cavities will also be found in many issues of THE LANCET, the references to which will be found in Dr. Neale's excellent "Digest." Dr. R. Douglas Powell's book, "Diseases of the Lungs" (H. K. Lewis, 136, Gower-street, W.C., third edition, 18s.), also gives much information.—ED. L.

THE *Secretary of the Vegetarian Society* has yet to learn that editors are not responsible for the opinions of their correspondents.

Parish Council is requested to restate his query more fully, giving names and places.

Mr. W. F. Dale is thanked for his communication.

"THE BRITISH MEDICAL BENEVOLENT FUND."

To the Editors of THE LANCET.

SIRS,—May I ask you to be kind enough to allow me to add the following names to the list of contributions to the British Medical Benevolent Fund?

Dr. Ryding Morse ...	£0	10	6	Dr. Ogier Wood	£0	10	6
Dr. Connel	1	0	0	Dr. Finlayson	10	0	0
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Dr. Duffin	5	5	0	Sir James Paget	10	10	0
Mr. Butlin	2	0	0	Surgeon-Major Gardner	5	5	0
Mr. C. A. Aikin	2	12	6	C. G. E.	0	10	6

I am, Sirs, yours faithfully,

Brook-street, W., Nov. 20th, 1895. W. H. BROADBENT.

MEASLES IN DOGS.

To the Editors of THE LANCET.

SIRS,—Can any of your readers give any information as to whether dogs (or other animals) have been known to suffer from measles? I have been attending some twenty odd cases of measles, one of my patients being in my hospital in which I live. I know my dog (fox terrier bitch) has been into this particular child's room. For the past few days the dog has evidently been very unwell, refusing her food, &c. Yesterday I noticed a rash on her abdomen identical with the eruption of measles in appearance. If this is true measles, are there any other instances known? I am, Sirs, yours truly,

Nov. 18th, 1895. M. H.

A STORY.

THE following anecdote has a somewhat *trovato* flavour, but the original narrator vouches for its authenticity:—

At a certain military station a newly-fledged assistant-surgeon who inhabited one of the "pill-boxes," as the quarters assigned to the medical staff were profanely designated, found himself unable to sleep one night in consequence of the persistent coughing of an unfortunate soldier who was doing sentry-go hard by. Perhaps philanthropy may have been the motor; but, at any rate, the wakeful surgeon left his warm couch, and proceeding to the adjoining dispensary compounded a powerful, if somewhat nauseous, draught, which he confidently believed would overcome the most inveterate cough that was ever pumped from bronchitic lungs. Armed with this potent weapon, and wrapping himself up carefully—for it was very cold—the would-be philanthropist made his way to the sentry-box, and ordered its astonished occupant to take the medicine forthwith. The man objected; but the officer was peremptory, and at length, amidst much spluttering and objurgation, the physic was swallowed. Needless to say, it acted like a charm (physic always does under similar circumstances), and from that moment until the rising sun once more awoke the multifarious noises of the camp not a sound disturbed the solemn stillness. Next day at the breakfast-table, while dilating on the marvellous qualities of his cough-no-more specific to an admiring circle of subalterns, who one and all advised him to have it patented, the complacent young gentleman, to his great surprise, received a summons to the orderly room.

"What is the meaning of this, Mr. Blank?" said the colonel, with an expression wherein sternness and amusement strove for mastery. "Here is Private Rooney, who says you forced him to drink some stuff last night which he believes was poison, for he has felt very ill ever since."

"I simply cured his cough for him, sir," replied the assistant-surgeon proudly, "and he ought to be grateful, instead of trying to trump up such a preposterous charge."

"Tell the officer what you complain of," said the colonel, addressing the late sentry.

The *patient malgré lui* had a brogue you might cut with a knife, as the saying is. "I beg your pardon, sorr," he exclaimed in response to the C.O.'s request; "shure it's the truth, and nothing but the truth, I'm afther tellin' you. The doctor he comes out all wrapped up in a blanket, wid a glass in his fist, and he says, says he, 'Dhrink this, me man; it'll do ye good.' 'Is it whiskey, sorr?' said I, for I had me doubts. 'Whiskey, ye drhunken spalpeen ye,' says he—savin' your presence, sorr—'no, it ain't whiskey, it's good medicine, that's what it is, an' ye'd better be afther tossing it down the red lane widout makin' any more fuss.' 'Not me, sorr,' says I; 'shure, if it's medicine yez'll be wantin' it for the poor min in hospital.' But it warn't no use. 'Av ye doesn't take it this instant minute,' says the doctor in a thunderin' rage, 'I'll clap you in the guard room.' And so I had to swallow the bastely stuff."

"Well, the beastly stuff cured your cough, at all events," said Mr. Blank, when decorum once more resumed its wonted sway. "You had been barking away for an hour or more, and I did not hear you cough once afterwards."

"Faix, then, it warn't me ye heard barkin' at all," cried Private Rooney triumphantly. "It wor Bill Smith, whose place I hadn't tuck more'n two minutes whin you come wid the poison."

Secretary.—The General Medical Council do not, it is understood, object to unqualified assistants being employed by practitioners when resident in or near their employers' houses, but the Council will not allow unqualified persons to conduct branch practices or dispensaries which are situated at a distance from the principal's house and are not under his immediate supervision. A notice to this effect appears in our advertisement columns weekly.

MEDICAL ETIQUETTE.

To the Editors of THE LANCET.

SIRS,—A few weeks ago, having a small practice to dispose of, I wrote particulars to a local agent. A person presented himself, and examined my books and became acquainted with the nature of my practice. He left, promising to see me again. I next hear of his prowling about the village, canvassing my patients for a club, and next that he has taken rooms and on his own account commenced practice. Such conduct amongst gentlemen needs no comment—it is too low, and disgusts one. But I think it a serious matter for agents, and I have no doubt a strong one would find some legal remedy for such conduct. It may be warning, however, to others; and I should advise practitioners to be very careful, and not regard so much their testimonials as to require information with respect to their personal character.

I remain, Sirs, yours truly,

Nov. 18th, 1895. PRACTITIONER.

*** It is not the first time that this mean and disgraceful trick has been brought to our notice. In every case where a vendor has been treated in this way he should write a full account of the occurrence to the agent.—ED. L.

ERRATUM.—We regret that by an unfortunate error "gramme" was printed for "grain" in all the figures of the pulse-tracings illustrating Professor Bradbury's Bradshaw Lecture in our last issue.

Communications, Letters, &c., have been received from—

A.—Dr. W. B. Addison, Tenterden; Mr. S. S. Ashmore-Noakes, Nice; Mr. Aldred, Great Yarmouth; Mons. J. Astier, Paris; A. H. F., Lond.; Alpha, Lond.; Alpha, Edinburgh.

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Y.—Dr. W. M. Yeoman, Stokesley.

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